

(E) Pine Creek from its confluence with the Salmon River upstream 17.6 km (10.9 mi).

(F) Boulder Creek from its confluence with the Salmon River upstream 14.5 km (9.0 mi).

(G) Spring Creek from its confluence with the Salmon River upstream 10.6 km (6.6 mi).

(H) Squaw Creek from its confluence with the Salmon River upstream 14.9 km (9.3 mi).

(I) Indian Creek from its confluence with the Salmon River upstream 18.6 km (11.4 mi) and extending 5.6 km (3.5 mi) up West Fork Indian Creek, 7.6 km (4.7 mi) up Corral Creek, and 9.2 km (5.7 mi) up McConn Creek.

(J) North Fork Salmon River from its confluence with the Salmon River upstream 39.4 km (24.5 mi) and extending up into the following tributaries: Hughes Creek for a distance of 18.2 km (11.3 mi); Sheep Creek for a distance of 10.9 km (6.8 mi) and extending 5.2 km (3.2 mi) up South Fork Sheep Creek and 9.2 km (5.7 mi) up North Fork Sheep Creek; Dahlonga Creek for a distance of 12.7 km (7.9 mi); Twin Creek for a distance of 11.9 km (7.4 mi); Vine Creek for a distance of 4.4 km (2.7 mi); Pierce Creek for a distance of 6.7 km (4.2 mi); West Fork, North Fork Salmon River Creek for a distance of 3.1 km (1.9 mi); and Moose Creek for a distance of 5.0 km (3.1 mi).

(K) Fourth of July Creek from its confluence with the Salmon River upstream 17.8 km (11.1 mi).

(L) Carmen Creek from its confluence with the Salmon River upstream 24.2 km (15.0 mi) and extending 1.5 km (0.9 mi) up Freeman Creek.

(M) Williams Creek from its confluence with the Salmon River upstream 9.9 km (6.1 mi) and extending 8.2 km (5.1 mi) up South Fork Williams Creek.

(N) Twelvemile Creek from its confluence with the Salmon River upstream 14.1 km (8.8 mi).

(O) Iron Creek from its confluence with the Salmon River upstream 20.6 km (12.8 mi) and extending 11.7 km (7.3 mi) up North Fork Iron Creek, 8.8 km (up South Fork Iron Creek, and 7.7 km (4.8 mi) up West Fork Iron Creek.

(P) McKim Creek from its confluence with the Salmon River upstream 10.1 km (6.3 mi) and extending 9.8 km (6.1 mi) up North Fork McKim Creek.

(Q) Hat Creek from its confluence with the Salmon River upstream 17.6 km (10.9 mi) and extending 6.6 km (4.1 mi) up Big Hat Creek, 6.6 km (4.4 mi) up Middle Fork Hat Creek, and 7.2 km (4.5 mi) up North Fork Hat Creek.

(R) Allison Creek from its confluence with the Salmon River upstream 10.9 km (6.8 mi).

(S) Cow Creek from its confluence with the Salmon River upstream 15 km (9.3 mi).

(vi) Lemhi River CHSU

Approximately 1,232 km (766 mi) of stream is proposed as critical habitat in drainages associated with the Lemhi River. Landownership within the CHSU is approximately 65 percent Federal, 32 percent private, and 3 percent State. This CHSU supports six existing bull trout local populations and three potential local populations, all of which are identified as essential for bull trout recovery in the Draft Recovery Plan (USFWS 2002). The stream segments proposed for critical habitat designation in this CHSU are described below.

(A) The Lemhi River from its confluence with the Salmon River upstream 93.6 km (58.2 mi) to its headwaters (the confluence of Texas Creek and Eighteen Mile Creek). This segment provides FMO habitat, and provides connectivity between the local populations in the Lemhi watershed. All other stream segments in this CHSU are tributaries of the Lemhi River and primarily provide spawning and rearing habitat.

(B) Geerston Creek from the point where an irrigation ditch turns west towards Kirtley Creek, upstream 7.7 km (4.8 mi) in the irrigation ditch to the point of diversion then upstream in Geerston Creek a total of 15.7 km (9.6 mi) to the outlet of a headwater lake for a total of 23.4 km (14.5 mi).

(C) Bohannon Creek from its confluence with the Lemhi River upstream 16.4 km (10.2 mi).

(D) Kenney Creek from its confluence with the Lemhi River upstream 15.7 km (9.7 mi) and extending 7.0 km (4.3 mi) up East Fork Kenney Creek.

(E) Pattee Creek from its confluence with the Lemhi River upstream 21.0 km (13.0 mi).

(F) Hayden Creek from its confluence with the Lemhi River upstream 31.8 km (19.7 mi) and extends up into the following tributaries: Bear Valley Creek for a distance of 14.4 km (8.9 mi) and extending 8.0 km (5.0 mi) up Kadletz Creek, 8.5 km (5.3 mi) up Wright creek, 2.9 km (1.8 mi) up Short Creek, and 12.6 km (7.8 mi) up Deer Creek; East Fork Hayden Creek for a distance of 13.8 km (8.6 mi); Cooper Creek for a distance of 6.7 km (4.2 mi); West Fork Hayden Creek from its mouth upstream 1 km (0.6 mi) and Bray Creek for a distance of 5.2 km (3.3 mi).

(G) Mill Creek from the point where it is diverted for irrigation upstream

17.9 km (11.1 mi) to where it flows from a lake.

(H) Big Springs Creek from its confluence with the Lemhi River upstream to its source and including historic portions of the stream channel now used to divert irrigation water for a total of 18.8 km (11.7 mi).

(I) Little Eight Mile Creek from its confluence with the Lemhi River upstream 13.1 km (8.1 mi).

(J) Big Eight Mile Creek from its confluence with the Lemhi River upstream 24.1 km (15.0 mi) and extending 4.1 km (2.5 mi) up Dairy Creek.

(K) Big Timber Creek from its confluence with the Lemhi River upstream 34.1 km (21.2 mi) and extending 6.7 km (4.2 mi) up Little Timber Creek and 10.2 km (6.3 mi) of Middle Fork Little Timber Creek.

(L) Canyon Creek from its confluence with the Lemhi River upstream 24.2 km (15.0 mi) and extending up the following tributaries: Cruikshank Creek for a distance of 11.3 km (7.0 mi); and unnamed segments from four springs (Hood Gulch) from where it is diverted for irrigation then upstream about 2 km (1.2 mi) in a single waterway. Then Hood Gulch is spread out in a series of four springs/channels that each flow for a few kilometers up to their spring source. The entire network of springs and channels to the point of diversion totals 19.8 km (12.3 mi).

(M) Eighteen Mile Creek from its confluence with the Lemhi River upstream 43.2 km (26.8 mi) and extending up the following tributaries: Deer Creek, a tributary to Texas Creek, for a distance of 9.3 km (5.8 mi); Hawley Creek for a distance of 14.9 km (9.3 mi) to the point where Reservoir Creek and Big Bear Creek meet, and extending up Reservoir Creek for 9.1 km (5.6 mi), up Big Bear Creek for 11.1 km (6.9 mi), and up Meadow Creek for 2.8 km (1.7 mi).

(vii) Opal Lake CHSU

Proposed critical habitat in the Opal Lake CHSU consists of 6 ha (14 ac) Opal Lake and 4 km (2.5 mi) of upper Opal Creek that feeds into the lake. The CHSU is entirely on USFS land and supports one existing bull trout local population that is identified as essential for bull trout recovery in the Draft Recovery Plan (USFWS 2002). Opal Lake has no known outlet, so this bull trout population is isolated from other populations. Good spawning habitat is located upstream of the lake in upper Opal Creek, however, positive identification of redds has been unavailable to date (B. Roberts, USFS, *in litt.*, 2000a).

(viii) Lake Creek CHSU

Proposed critical habitat in the Lake Creek CHSU consists of 10.6 km (6.6 mi) of Lake Creek, 4.3 km (2.7 mi) of North Fork Lake Creek, and Williams Lake (72 ha (177 ac)). This unit supports one existing bull trout local population that is identified as essential for recovery in the Draft Recovery Plan (USFWS 2002). Williams Lake has no known surface outlet, so this bull trout population is isolated from other populations. Good spawning habitat is located upstream of the lake in Lake Creek, and its north fork and bull trout have been observed in these streams (T. Curet, IDFG, pers. comm., 2002). Landownership in this CHSU is approximately 86 percent Federal and 13 percent private.

(ix) Pahsimeroi River CHSU

Approximately 362 km (225 mi) of stream is proposed as critical habitat in drainages associated with the Pahsimeroi River. Landownership within the CHSU is 66 percent Federal, 31 percent private, and 3 percent State. This CHSU supports eight existing bull trout local populations, all of which are identified as essential for bull trout recovery in the Draft Recovery Plan (USFWS 2002). The stream segments proposed for critical habitat designation in this CHSU are described below.

(A) The Pahsimeroi River from its confluence with the Salmon River upstream 85 km (53.3 mi) to its headwaters. This segment provides FMO habitat, and provides connectivity between the local populations in the Pahsimeroi watershed. All other stream segments in this CHSU are tributaries of the Pahsimeroi River and are primarily spawning and rearing habitat.

(B) Morgan Creek from its confluence with the Pahsimeroi River upstream 8.7 km (5.4 mi) and extending 9.7 km (6.0 mi) up the North Fork Morgan Creek and 6.8 km (4.2 mi) up the East Fork Morgan Creek.

(C) Tater Creek from its confluence with the Pahsimeroi River upstream 13.8 km (8.6 mi) and including the irrigation ditches currently used to divert water at rkm 8.6 (rmi 5.3).

(D) Morse Creek from its confluence with the Pahsimeroi River upstream 20 km (12.4 mi).

(E) Falls Creek from its confluence with the Pahsimeroi River upstream 24.1 km (15.0 mi).

(F) Patterson Creek from its confluence with the Pahsimeroi River upstream 43.2 km (26.8 mi) and extending 5.2 km (3.2 mi) up Inyo Creek.

(G) Big Creek from its confluence with the Pahsimeroi River upstream 19.9 km

(12.4 mi) to the confluence of North Fork Big Creek and South Fork Big Creek, and extending 14.2 km (8.8 mi) up the South Fork and 13.4 km (8.3 mi) up the North Fork.

(H) Goldberg Creek from its confluence with the Pahsimeroi River upstream 27.3 km (17.0 mi) to the confluence of Big Gulch and Ditch Creeks and extending 11.2 km (7.0 mi) up Big Gulch and 10.7 km (6.6 mi) up Ditch Creek.

(I) Burnt Creek from its confluence with the Pahsimeroi River upstream 17.2 km (10.7 mi) to the East Fork Burnt Creek confluence and extending 4.0 km (2.5 mi) up East Fork Burnt Creek.

(J) Mahogany Creek from its confluence with the Pahsimeroi River upstream 14.7 km (9.1 mi).

(K) West Fork Pahsimeroi River from its confluence with the Pahsimeroi River upstream 9.1 km (5.7 mi).

(L) East Fork Pahsimeroi River from its confluence with the Pahsimeroi River upstream 10.8 km (6.7 mi).

(x) Upper Salmon River CHSU

Approximately 1,220 km (758 mi) of stream is proposed as critical habitat in drainages associated with the Upper Salmon River. Landownership within the CHSU is approximately 79 percent Federal and 14 percent private. This CHSU supports 18 existing bull trout local populations, all of which are identified as essential for bull trout recovery in the Draft Recovery Plan (USFWS 2002). The stream segments proposed for critical habitat designation in this CHSU are described below.

(A) The Salmon River from its confluence with the Pahsimeroi River upstream 195 km (121 mi) to its headwaters. This stretch of the Salmon River primarily provides foraging and overwinter habitat, and connectivity between the bull trout local populations in this area, as well as a migratory corridor for movement to downstream portions of the Salmon River. The uppermost 31 km (19 mi) above the confluence with Alturas Lake Creek also supports spawning and rearing. All other stream segments in this CHSU are tributaries of the Salmon River and primarily provide spawning and rearing habitat.

(B) Morgan Creek from its confluence with the Salmon River upstream 31.7 km (19.7 mi) to its headwaters and extending up the following tributaries: West Fork Morgan Creek for a distance of 14.2 km (8.8 mi); Lick Creek for a distance of 9.4 km (5.8 mi); Van Horn Creek for a distance of 9.6 km (6.0 mi); Corral Creek for a distance of 12.7 km (7.9 mi) and extending 5.5 km (3.4 mi) up an unnamed tributary that enters

Corral Creek from the east; and Alder Creek for a distance of 4.4 km (2.7 mi).

(C) Challis Creek from its confluence with the Salmon River upstream 22.6 km (14.0 mi) to its headwaters and extending up the following tributaries: Mill Creek for a distance of 23.9 km (14.8 mi); Bear Creek for a distance of 8.9 km (5.5 mi); and Lodgepole Creek for a distance of 6.4 km (4.0 mi).

(D) Garden Creek from its confluence with the Salmon River upstream 22.6 km (14.0 mi) to its headwaters.

(E) East Fork Salmon River from its confluence with the Salmon River upstream 58.2 km (36.1 mi) to its headwaters and extending up the following tributaries: Herd Creek for a distance of 14.3 km (8.9 mi) and extending 4.2 km (2.6 mi) up East Pass Creek, 10 km (6.2 mi) up East Fork Herd Creek, 9.4 km (5.8 mi) up West Fork Herd Creek and 2.8 km (1.7 mi) up Meridian Creek; Big Boulder Creek for a distance of 18.9 km (11.7 mi); Little Boulder Creek for a distance of 10.1 km (6.3 mi); Wickiup Creek for a distance of 10.8 km (6.7 mi); Germania Creek for a distance of 23.4 km (14.5 mi) and extending up Chamberlain Creek for 8.3 km (5.2 mi); Bowery Creek for a distance of 8.0 km (5 mi) and extending 6.5 km (4.0 mi) up Long Tom Creek and 3.9 km (2.4 mi) up North Fork Bowery Creek; West Pass Creek for a distance of 13.5 km (8.4 mi) and extending 4.8 km (3.0 mi) up Roaring Creek; Ibex Creek for a distance of 6.1 km (3.8 mi); West Fork East Fork Salmon River for a distance of 8.6 km (5.3 mi); and South Fork East Fork Salmon River for a distance of 10.1 km (6.3 mi).

(F) Kinnikinic Creek from its confluence with the Salmon River upstream 13.8 km (8.6 mi) to its headwaters.

(G) Squaw Creek from its confluence with the Salmon River upstream 25.7 km (16.0 mi) to its headwaters and extending 8.3 km (5.2 mi) up Martin Creek and 5.2 km (3.2 mi) up Willow Creek.

(H) Thompson Creek from its confluence with the Salmon River upstream 19.6 km (12.2 mi) to its headwaters.

(I) Slate Creek from its confluence with the Salmon River upstream 13.3 km (8.3 mi) to its headwaters and extending 8.4 km (5.2 mi) up Silver Rule Creek and 5.9 km (3.7 mi) up Livingston Creek.

(J) Warm Springs Creek from its confluence with the Salmon River upstream 34.4 km (21.4 mi) to its headwaters and extending 9.1 km (5.7 mi) up Martin Creek, and 1.2 km (0.7 mi) up Pigtail Creek.

(K) Yankee Fork Salmon River from its confluence with the Salmon River upstream 46.7 km (29.0 mi) to its headwaters and extending up the following tributaries: West Fork Yankee Fork for a distance of 21.1 km (13.1 mi) and extending 6.5 km (4.0 mi) up Deadwood Creek, 12.7 km (7.9 mi) up Lightning Creek, and 8.3 km (5.2 mi) up Cabin Creek; Jordan Creek for a distance of 12.6 km (7.8 mi); Fivemile Creek for a distance of 7.6 km (4.7 mi); Sixmile Creek for a distance of 7 km (4.3 mi); Eightmile Creek for a distance of 10.8 km (6.7 mi); Ninemile Creek for a distance of 4.5 km (2.8 mi); Tenmile Creek for a distance of 6.7 km (4.2 mi); Elevenmile Creek for a distance of 4.6 km (2.9 mi); Twelvemile Creek for a distance of 5.8 km (3.6 mi); and McKay Creek for a distance of 7.5 km (4.7 mi) and extending 4.4 km (2.7 mi) up an unnamed tributary that enters McKay Creek from the south.

(L) Basin Creek from its confluence with the Salmon River upstream 23.4 km (14.5 mi) to its headwaters and extending up the following tributaries: East Basin Creek for a distance of 10.1 km (6.3 mi) and extending 3.3 km (2.0 mi) up an unnamed tributary that enters East Basin from the northwest; Short Creek for a distance of 3 km (1.9 mi); and Sunday Creek for a distance of 5.7 km (3.5 mi).

(M) Valley Creek from its confluence with the Salmon River upstream 39.6 km (24.6 mi) to a headwater lake and extending up the following tributaries: Goat Creek for a distance of 8.3 km (5.2 mi); Iron Creek for a distance of 10.1 km (6.3 mi); Crooked Creek for a distance of 6.1 km (3.8 mi); Job Creek for a distance of 0.1 km (0.06 mi); Elk Creek for a distance of 20.2 km (12.5 mi); Meadow Creek for a distance of 4 km and extending 8.8 km (5.5 mi) up Trap Creek; East Fork Valley Creek for a distance of 7.5 km (4.7 mi); and Prospect Creek for a distance of 4.7 km (2.9 mi).

(N) Redfish Lake Creek from its confluence with the Salmon River upstream 4.2 km (2.6 mi) to Little Redfish Lake and including: Little Redfish Lake (26 ha (64 ac)); Redfish Lake (612 ha (1,512 ac)); Redfish Lake Creek for 0.2 km (0.1 mi) upstream of Redfish Lake; and Fishhook Creek for a distance of 6.6 km (4.1 mi).

(O) Fourth of July Creek from its confluence with the Salmon River upstream 19.9 km (12.4 mi) to its headwaters.

(P) Alturas Lake Creek from its confluence with the Salmon River upstream 12.5 km (7.8 mi) to Alturas Lake and including the following tributaries and lakes: Yellowbelly Creek

for 3.5 km (2.2) from Alturas Lake Creek upstream to Yellowbelly Lake and for 5.4 km (3.4 mi) from Yellowbelly Lake upstream to Farley Lake outlet; Yellowbelly Lake (79 ha (195 ac)); Pettit Lake Creek for 1.9 km (1.2 mi) between Alturas Lake Creek and Pettit Lake and for 3.1 km (1.9 mi) upstream of Pettit Lake; Pettit Lake (152 ha (376 ac)); Cabin Creek for 4.0 km (2.5 mi) from Alturas Lake Creek to its headwaters; Alturas Lake (334 ha (825 ac)); Alturas Lake Creek from Alturas Lake upstream 13.4 km (8.3 mi) to its headwater; Alpine Creek for 8.6 km (5.3 mi) from Alturas Lake Creek to its headwaters; Pole Creek from its confluence with the Salmon River upstream 16.9 km (10.5 mi) to its headwaters.

(Q) Beaver Creek from its confluence with the Salmon River upstream 14.4 km (8.9 mi) to its headwaters.

(R) Smiley Creek from its confluence with the Salmon River upstream 16.9 km (10.5 mi) to its headwaters.

(S) Frenchman Creek from its confluence with the Salmon River upstream 11.5 km (7.1 mi) to its headwaters.

(21) Unit 17: Southwest Idaho River Basins

The Southwest Idaho Unit includes a total of approximately 2,792 km (1,735 mi) of stream in the Boise, Payette, and Weiser River basins (Ada, Adams, Boise, Camas, Canyon, Elmore, Gem, Payette, Valley, and Washington counties) proposed for designation as critical habitat. The Boise River basin contains the Arrowrock, Anderson Ranch, and Lucky Peak critical habitat CHSUs. The Payette River Basin contains the upper South Fork Payette River, Deadwood River, Middle Fork Payette River, North Fork Payette River and Squaw Creek CHSUs; and the Weiser River basin contains the Weiser River CHSU. All proposed critical habitat designations are associated with populations of bull trout identified as essential to recovery in the Draft Recovery Plan (USFWS 2002), and are essential to the conservation of the species.

(i) Anderson Ranch CHSU

This CHSU includes the South Fork Boise River watershed upstream of Anderson Ranch Dam. There are 15 local populations identified within this CHSU, all of which are considered essential for recovery of bull trout (USFWS 2002). Approximate landownership is as follows: 87 percent Federal, 11 percent private, 2 percent State. Proposed critical habitat in this CHSU includes the 1,865 ha (4,608 ac) Anderson Ranch Reservoir. Critical habitat within the Anderson Ranch

CHSU includes the stream segments and water body described below that provide FMO habitat, and allow for the maintenance of genetic exchange by local and potential local populations both within and between CHSUs.

(A) South Fork Boise River from the Anderson Ranch CHSU boundary 8.7 km (5.4 mi) downstream of Anderson Ranch Reservoir upstream to and including the Reservoir, and upstream 77.6 km (48.2 mi) to the point 6.4 km (4.0 mi) above the confluence with Bear Creek is migratory habitat (Partridge *et al.* 2000), and the 6.4 km reach above Bear Creek is suspected to support bull trout spawning and early rearing (C. Reighn, USFWS, *in litt.*, 2002). Dog Creek from the confluence with South Fork Boise River upstream 9.0 km (5.6 mi) to the headwaters is spawning and early rearing habitat (Corley 1997; Boise National Forest (BNF), unpublished 2002).

(B) Feather River from the confluence with South Fork Boise River upstream 10.3 km (6.4 mi) to the confluence of Feather River and Elk Creek is suspected to provide bull trout FMO habitat, as well as to support bull trout spawning and early rearing (C. Reighn, USFWS, *in litt.*, 2002). The Feather River is essential to providing for the recovered distribution of bull trout (USFWS 2002).

(C) Elk Creek from the confluence with the Feather River upstream 11.4 km (7.1 mi) to the headwaters of Elk Creek is spawning and early rearing habitat (Corley 1997; BNF, unpublished 2002). East Fork Elk Creek from the confluence with Elk Creek upstream 4.7 km (2.9 mi) to the headwaters of East Fork Elk Creek is spawning and early rearing habitat (C. Reighn, USFWS, *in litt.*, 2002).

(D) Willow Creek from the confluence with the South Fork Boise River upstream 19.3 km (12.0 mi) to the headwaters of Willow Creek is spawning and early rearing habitat (Corley 1997; Partridge *et al.* 2000; BNF, unpublished 2002).

(E) Big Water Gulch from the confluence with the South Fork Boise River upstream 10.2 km (6.3 mi) to the headwaters of Big Water Gulch is spawning and early rearing habitat (Corley 1997; BNF, unpublished 2002).

(F) Deadwood Creek from the confluence with the South Fork Boise River upstream 6.9 km (4.3 mi) to the headwaters of Deadwood Creek is known to support bull trout spawning and early rearing (Corley 1997; BNF, unpublished 2002).

(G) Skeleton Creek from the confluence with South Fork Boise River upstream 15.0 km (9.3 mi) to the

headwaters of Skeleton Creek (Corley 1997; Partridge *et al.* 2000; BNF, unpublished 2002), Burnt Log Creek from the confluence with Skeleton Creek upstream 4.0 km (2.5 mi) (Partridge *et al.* 2000), West Fork Skeleton Creek from the confluence with Skeleton Creek upstream 5.0 km (3.1 mi) to the headwaters (Corley 1997; BNF, unpublished 2002), and East Fork Skeleton Creek from the confluence with West Fork Skeleton Creek upstream 4.8 km (3.0 mi) (D. Kenney, USFS, *in litt.*, 2002) are known to support bull trout spawning and early rearing.

(H) Boardman Creek from the confluence with South Fork Boise River upstream 14.4 km (8.9 mi) to the headwaters is spawning and early rearing habitat (Corley 1997; BNF, unpublished 2002; Partridge *et al.* 2000; D. Kenney, *in litt.*, 2002). Smoky Dome Canyon from the confluence with Boardman Creek upstream 5.3 km (3.3 mi) to the headwaters is spawning and early rearing habitat (Corley 1997; BNF, unpublished 2002; D. Kenney, *in litt.*, 2002).

(I) Big Smoky Creek from the confluence with South Fork Boise River upstream 18.1 km (11.3 mi) to the confluence of Big Smoky Creek and North Fork Big Smoky Creek is known to provide bull trout FMO habitat (Partridge *et al.* 2000). Salt Creek from the confluence with Big Smoky Creek upstream 8.4 km (5.2 mi) to the headwaters is bull trout spawning and early rearing habitat (BNF, unpublished 2002). Little Smoky Creek from the confluence with Big Smoky Creek upstream 9.5 km (5.9 mi) to the confluence of Little Smoky Creek and Five Points Creek is known to provide bull trout FMO habitat (Sawtooth National Forest, *in litt.*, 2001; D. Kenney, *in litt.*, 2002), and from this point upstream 25.4 km (15.8 mi) to the headwaters is spawning and early rearing habitat (D. Kenney, *in litt.*, 2002). Carrie Creek from the confluence with Little Smoky Creek upstream 11.4 km (7.1 mi) to the headwaters is essential to providing for the recovered distribution of bull trout (USFWS 2002), and is also recently discovered to support bull trout spawning and early rearing (D. Kenney, *in litt.*, 2002). Big Peak Creek from the confluence with Big Smoky Creek upstream 7.4 km (4.6 mi) to the headwaters is essential to providing for the recovered distribution of bull trout (USFWS 2002), and has also recently been identified as supporting bull trout spawning and early rearing (Partridge *et al.* 2000). Big Smoky Creek from the confluence with North Fork Big Smoky Creek upstream

17.3 km (10.8 mi) to the headwaters is spawning and early rearing habitat (Partridge *et al.* 2000). North Fork Big Smoky Creek from the confluence with Big Smoky Creek upstream 4.4 km (2.7 mi) to the confluence of North Fork Big Smoky Creek and Snowslide Creek is FMO habitat (Partridge *et al.* 2000; D. Kenney, *in litt.*, 2002). Snowslide Creek from the confluence with North Fork Big Smoky Creek upstream 4.2 km (2.6 mi) to the headwaters is spawning and early rearing habitat (Partridge *et al.* 2000). Bluff Creek from the confluence with Big Smoky Creek upstream 7.0 km (4.4 mi) to the headwaters of Bluff Creek is known to support bull trout spawning and early rearing (Corley 1997; BNF, unpublished 2002). West Fork Big Smoky Creek from the confluence with Big Smoky Creek upstream 10.7 km (6.7 mi) to the headwaters of West Fork Big Smoky Creek is spawning and early rearing habitat (Corley 1997; Partridge *et al.* 2000; BNF, unpublished 2002). Loggy Creek from the confluence with West Fork Big Smoky Creek upstream 4.5 km (2.8 mi) to the headwaters is spawning and early rearing habitat (Partridge *et al.* 2000; D. Kenney, *in litt.*, 2002).

(J) Bear Creek from the confluence with South Fork Boise River upstream 10.1 km (6.3 mi) to the headwaters, and Goat Creek from the confluence with Bear Creek upstream 2.8 km (1.8 mi) to the headwaters are bull trout spawning and early rearing habitat (Corley 1997; Partridge *et al.* 2000; BNF, unpublished 2002).

(K) Emma Creek from the confluence with South Fork Boise River upstream 9.5 km (5.9 mi) to the headwaters of Emma Creek is known to support bull trout spawning and early rearing (Corley 1997; Partridge *et al.* 2000; BNF, unpublished 2002; D. Kenney, *in litt.*, 2002). An unnamed creek from its confluence with Emma Creek (4.5 km (2.8 mi) upstream of the confluence of Emma Creek with South Fork Boise River) upstream 1.8 km (1.1 mi) to its headwaters is known to support bull trout spawning and early rearing (BNF, *in litt.* 2002; Corley 1997).

(L) Ross Fork Creek from the confluence with South Fork Boise River upstream 6.0 km (3.7 mi) to the headwaters, Little Bear Creek from the confluence with Ross Fork Creek upstream 5.4 km (3.3 mi) to the headwaters (Partridge *et al.* 2000; D. Kenney, *in litt.*, 2002), and Bass Creek from the confluence with Ross Fork Creek upstream 6.5 km (4.0 mi) to the headwaters are spawning and early rearing habitat (Corley 1997; Partridge *et al.* 2000; BNF, unpublished 2002). South Fork Ross Fork Creek from the

confluence with Ross Fork Creek upstream 8.4 km (5.2 mi) to the headwaters (Corley 1997; BNF, unpublished 2002), and North Fork Ross Fork Creek from the confluence with Ross Fork Creek upstream 7.6 km (4.7 mi) to the headwaters are spawning and early rearing habitat (Corley 1997).

(M) Johnson Creek from the confluence with South Fork Boise River upstream 11.9 km (7.4 mi) to the headwaters, and Vienna Creek from the confluence with Johnson Creek upstream 6.1 km (3.8 mi) to the headwaters are bull trout spawning and early rearing habitat (Corley 1997; Partridge *et al.* 2000; BNF, unpublished 2002; D. Kenney, *in litt.*, 2002).

(ii) Arrowrock CHSU

The Arrowrock CHSU includes the Boise River watersheds upstream of Arrowrock Dam, including the North Fork Boise River, Middle Fork Boise River, and South Fork Boise River downstream of Anderson Ranch Dam. There are 15 local populations identified within the Arrowrock CHSU. Landownership in this CHSU is approximately as follows: 91 percent Federal (USFS, BLM, BOR), 6 percent private, and 3 percent State. Proposed critical habitat includes Arrowrock Reservoir (3,489 ha (8,617 ac)).

(A) Arrowrock Reservoir provides bull trout FMO habitat (Flatter 1998; Salow 2001), as does the South Fork Boise River from Arrowrock Reservoir upstream 39.0 km (24.2 mi) to Anderson Ranch Dam (Flatter 1998).

(B) Rattlesnake Creek from the confluence of Rattlesnake Creek and South Fork Boise River upstream 26.4 km (16.4 mi) to the headwaters (Flatter 1998; BNF, unpublished 2002), and Russell Gulch from the confluence of Russell Gulch and Rattlesnake Creek upstream 4.0 km (2.5 mi) to the headwaters comprise bull trout spawning and early rearing habitat (Steed *et al.* 1998).

(C) Sheep Creek from the confluence of Sheep Creek and the Boise River upstream 6.9 km (4.3 mi) to the confluence of Sheep Creek and Devils Creek is FMO habitat (Flatter 1998). Sheep Creek from the confluence of Sheep Creek and Devils Creek upstream to the headwaters is spawning and early rearing habitat (BNF, unpublished 2002). Devils Creek from the confluence of Devils Creek and Sheep Creek upstream 5.88 km (3.8 mi) to the headwaters is known to support bull trout spawning and early rearing (Steed *et al.* 1998). East Fork Sheep Creek from the confluence of East Fork Sheep Creek and Sheep Creek upstream 5.76 km (3.6

mi) to the headwaters is spawning and early rearing habitat (Steed *et al.* 1998).

(D) Middle Fork Boise River from the confluence with the Boise River upstream 55.1 km (34.2 mi) is bull trout FMO habitat (Flatter 1998; Salow 2001). Middle Fork Boise River from the confluence of Middle Fork Boise River and Yuba River upstream 24.1 km (15.0 mi) to the headwaters. This reach contains primary constituent elements for bull trout (BNF, unpublished 2002), has recently been occupied by bull trout due to the installation of a fish ladder completed in 1999 (B. Flatter, IDFG, pers. comm., 2002), and provides for population expansion essential to conservation of the species (USFWS 2002).

(E) Roaring River from the confluence of Roaring River and Middle Fork Boise River upstream to the headwaters support bull trout spawning and early rearing (Flatter 1998; BNF, unpublished 2002). East Fork Roaring River from the confluence of East Fork Roaring River and Roaring River upstream 12.0 km (7.4 mi) to the headwaters (Flatter 1998; BNF, unpublished 2002), and Middle Fork Roaring River from the confluence of Middle Fork Roaring River and East Fork Roaring River upstream 8.6 km (5.4 mi) to the headwaters constitute spawning and early rearing habitat (Steed *et al.* 1998).

(F) Buck Creek from the confluence of Buck Creek and the Middle Fork Boise River upstream 11.6 km (7.2 mi) to the headwaters is spawning and early rearing habitat (Steed *et al.* 1998).

(G) Black Warrior Creek from the confluence of Black Warrior Creek and the Middle Fork Boise River upstream 18.8 km (11.6 mi) (BNF, unpublished 2002), and West Warrior Creek from the confluence of West Warrior Creek and Black Warrior Creek upstream 8.6 km (5.3 mi) to the headwaters (Steed *et al.* 1998) are spawning and early rearing habitats. An unnamed creek (SI-A-17) from the confluence with Black Warrior Creek (8.8 km (5.4 mi) upstream of the confluence of Black Warrior Creek with Middle Fork Boise River) upstream 3.0 km (1.9 mi) to the headwaters is spawning and early rearing habitat (BNF, unpublished 2002).

(H) Bald Mountain Creek from the confluence with the Middle Fork Boise River upstream 10.0 km (6.2 mi) to the headwaters is essential habitat for expanding distribution of bull trout (USFWS 2002), and is also recently known to support bull trout spawning and early rearing (BNF, unpublished 2002).

(I) Queens River from the confluence of Queens River and the Middle Fork Boise River upstream 23.4 km (14.6 mi)

to the headwaters (Flatter 1998; Steed *et al.* 1998; BNF, unpublished 2002), Little Queens River from the confluence of Little Queens River and Queens River upstream 14.8 km (9.2 mi) to the headwaters (Flatter 1998; BNF, unpublished 2002), and Scott Creek from the confluence of Scott Creek and Little Queens River upstream 2.5 km (1.5 mi) to the headwaters (Steed *et al.* 1998), are known to support bull trout spawning and early rearing. Tripod Creek from the confluence of Tripod Creek and Little Queens River upstream 3.1 km (1.9 mi) to the headwaters (Steed *et al.* 1998), and Scenic Creek from the confluence of Scenic Creek and Little Queens River upstream 4.2 km (2.6 mi) to the headwaters (BNF, unpublished 2002) support bull trout spawning and early rearing.

(J) Yuba River from the confluence of the Yuba River and Middle Fork Boise River upstream 14.0 km (8.7 mi) to the headwaters, Decker Creek from the confluence of Decker Creek and the Yuba River upstream 12 km (7.5 mi) to the headwaters, and Grouse Creek from the confluence of Grouse Creek and Decker Creek upstream 5.7 km (3.5 mi) upstream to the headwaters are known to support bull trout spawning and early rearing (BNF, unpublished 2002). Sawmill Creek from the confluence of Sawmill Creek and Grouse Creek upstream 6.5 km (4.1 mi) to the headwaters is also spawning and early rearing habitat (BNF, unpublished 2002).

(K) Trail Creek from the confluence with the Yuba River upstream 7.5 km (4.7 mi) to the headwaters is known to support bull trout spawning and early rearing (BNF, unpublished 2002).

(L) Mattingly Creek from the confluence with the Middle Fork Boise River upstream 9.7 km (6.0 mi) to the headwaters is known to contain primary constituent elements as identified for bull trout (BNF, unpublished 2002) and is essential to provide for the conservation of bull trout (USFWS 2002).

(M) North Fork Boise River from the confluence with the Middle Fork Boise River upstream 57.8 km (35.9 mi) to the confluence with Johnson Creek provides FMO habitat (Flatter 1998; BNF, unpublished 2002). Rabbit Creek from the confluence with the North Fork Boise River upstream 1.3 km (0.8 mi) to the confluence with First Creek and Hungarian Creek from the confluence with the North Fork Boise River upstream 0.8 km (0.5 mi) provide thermal refugia habitat for migratory bull trout in the North Fork Boise River (Flatter 1998; BNF, unpublished 2002).

(N) North Fork Boise River from the confluence with Johnson Creek upstream 7.0 km (4.3 mi) provides FMO and spawning and early rearing habitat (Flatter 1998; BNF, unpublished 2002); from the confluence of the North Fork Boise River and Big Silver Creek upstream to the headwaters supports spawning and early rearing (BNF, unpublished 2002). Crooked River from the confluence with the North Fork Boise River upstream 26.5 km (16.4 mi) to the confluence of Crooked River and an unnamed creek 2.5 km (1.6 mi) upstream of Willow Creek, and Ski Creek from the confluence with the Crooked River upstream 3.6 km (2.2 mi) to the headwaters provide habitat essential to provide for the recovery of bull trout (USFWS 2002), and are also recently known to provide bull trout FMO habitat, as well as to support spawning and early rearing (Salow 2001; BNF, unpublished 2002). Crooked River from the confluence with an unnamed creek 2.5 km (1.6 mi) upstream of Willow Creek upstream to the headwaters provides spawning and early rearing habitat (Salow 2001; BNF, unpublished 2002). Pikes Fork Creek from the confluence with the Crooked River upstream 14.1 km (8.8 mi) to the headwaters and Banner Creek from the confluence with Pikes Fork Creek upstream 1.9 km (1.2 mi) are recently known to support bull trout spawning and early rearing (Steed *et al.* 1998; BNF, unpublished 2002) and provide habitat essential for the conservation of bull trout (USFWS 2002).

(O) Bear River from the confluence with the North Fork Boise River upstream 6.2 km (3.8 mi) to the confluence of Bear River and Bear Creek provides both FMO and spawning and early rearing habitat (Flatter 1998). Bear River from the confluence with Bear Creek upstream 15.9 km (9.9 mi), and Louise Creek from the confluence with Bear River upstream 3.4 km (2.1 mi) to the headwaters, support bull trout spawning and early rearing (Steed *et al.* 1998; BNF, unpublished 2002). Cub Creek from the confluence with the Bear River upstream 4.8 km (3.0 mi) to the headwaters, and South Fork Cub Creek from the confluence with Cub Creek upstream 3.5 km (2.2 mi) to the headwaters, are known to support bull trout spawning and early rearing (Steed *et al.* 1998; Salow 2001; BNF, unpublished 2002). Bear Creek, from the confluence with the Bear River upstream 13.2 km (8.2 mi) to the headwaters, provides spawning and early rearing habitat (Salow 2001; BNF, unpublished 2002).

(P) Trail Creek from the confluence with the North Fork Boise River

upstream approximately 0.8 km (0.5 mi) provides thermal refugia for migratory bull trout in the North Fork Boise River (BNF, unpublished 2002).

(Q) Lodgepole Creek from the confluence with the North Fork Boise River upstream 5.6 km (3.5 mi) to the headwaters provides spawning and early rearing habitat (Flatter 1998; Salow 2001; BNF, unpublished 2002).

(R) Johnson Creek from the confluence with the North Fork Boise River upstream 20.0 km (12.4 mi) to the headwaters provides spawning and early rearing habitat (Flatter 1998; Salow 2001; BNF, unpublished 2002).

(S) Big Silver Creek from the confluence with the North Fork Boise River upstream 7.0 km (4.3 mi) to the headwaters, and Little Silver Creek from the confluence with Big Silver Creek upstream 4.1 km (2.6 mi) to the headwaters, provide spawning and early rearing habitat (Salow 2001; BNF, unpublished 2002).

(T) Cow Creek from the confluence with the North Fork Boise River upstream 7.5 km (4.6 mi) to the headwaters is bull trout spawning and early rearing habitat (BNF, unpublished 2002).

(U) Ballentyne Creek from the confluence with the North Fork Boise River upstream 9.9 km (6.2 mi) to the headwaters of Ballentyne Creek provides spawning and early rearing habitat (Flatter 1998; Salow 2001; BNF, unpublished 2002).

(V) West Fork Creek from the confluence with the North Fork Boise River upstream 3.3 km (2.1 mi) to the headwaters supports bull trout spawning and early rearing (BNF, unpublished 2002).

(W) McLeod Creek from the confluence with the North Fork Boise River upstream 5.9 km (3.6 mi) to the headwaters provides spawning and early rearing habitat (Flatter 1998; BNF, unpublished 2002).

(X) McPhearson Creek from the confluence with the North Fork Boise River upstream 5.5 km (3.4 mi) to the headwaters provides bull trout spawning and early rearing habitat (BNF, unpublished 2002).

(iii) Lucky Peak CHSU

The Lucky Peak CHSU includes Lucky Peak Reservoir and tributaries entering it, namely the Mores Creek watershed. Migratory bull trout in Lucky Peak Reservoir are entrained from Arrowrock Dam, and some may also be produced in the Mores Creek watershed. Bull trout were located in Mores Creek in 2000 (T. Burton, BNF, *in litt.*, 2000) and this is the only known local population in this CHSU. Approximate

landownership in this CHSU is as follows: 57 percent Federal, 18 percent State, and 25 percent private.

(A) Lucky Peak Reservoir (3,234 ha (7,911 ac)) and Mores Creek from its mouth in Lucky Peak Reservoir upstream approximately 55 km (34 mi) to a culvert on Highway 21 where Hayfork Creek enters the system provide FMO habitat (BOR 2000; H. Roerick, USFS, pers. comm., 2002). Mores Creek from this point upstream 7 km (4.4 mi) to the headwaters supports bull trout spawning and early rearing (BNF, unpublished 2002).

(iv) Deadwood River CHSU

This CHSU includes all watersheds in the Deadwood River drainage upstream of Deadwood Dam. There are five local and seven potential local populations identified within this CHSU.

Approximate landownership is as follows: 95 percent Federal and 5 percent private.

(A) Deadwood Reservoir (1,640 ha (4,054 ac)) provides FMO habitat (Allen 1998). The Deadwood River from Deadwood Dam upstream 40 km (25 mi) to the confluence with the East Fork Deadwood River provides FMO habitat.

(B) Trail Creek from the confluence with the Deadwood River upstream 13 km (8 mi) to the headwaters and Daisy Creek from the confluence with Trail Creek upstream 4.9 km (3 mi) to the headwaters provide bull trout spawning and early rearing habitat (Allen 1998; Jimenez and Zaroban 1998; Burton 1999a; BNF, unpublished 2002).

(C) South Fork Beaver Creek from the confluence with the Deadwood River upstream 6 km (3.8 mi) to the headwaters is habitat essential to providing for the recovery of bull trout (USFWS 2002), and has recently been found to provide spawning and early rearing habitat (Allen 1998; BNF, unpublished 2002). An unnamed creek from the confluence with South Fork Beaver Creek (at approximately 2.8 km (1.7 mi) upstream of the confluence of South Fork Beaver Creek with the Deadwood River) upstream 4.4 km (2.7 mi) to the headwaters is known to contain primary constituent elements as identified for bull trout (Jimenez and Zaroban 1998; Burton 1999a) and is habitat necessary to provide for expansion of bull trout populations necessary for recovery (USFWS 2002).

(D) Beaver Creek from the confluence with the Deadwood River upstream 7.8 km (4.9 mi) to the headwaters provides spawning and early rearing habitat (Allen 1998). An unnamed creek from the confluence with Beaver Creek (2.8 km (1.7 mi) upstream of the confluence of Beaver Creek with the Deadwood

River) upstream 3.5 km (2.2 mi) to the headwaters is habitat necessary to provide for expansion of bull trout populations necessary for recovery (USFWS 2002), and is known to contain primary constituent elements as identified for bull trout (Jimenez and Zaroban 1998; Burton 1999a).

(E) Habit Creek from the confluence with Beaver Creek upstream 6 km (3.7 mi) to the headwaters is habitat essential to providing for the recovery of bull trout (USFWS 2002), and has also recently been found to currently provide spawning and early rearing habitat (Allen 1998).

(F) Basin Creek from the confluence with Beaver Creek upstream 3 km (1.9 mi) to the headwaters provides spawning and rearing habitat.

(G) Wild Buck Creek from the confluence with the Deadwood River upstream 6.3 km (3.9 mi) to the headwaters provides spawning and early rearing habitat (Allen 1998; Jimenez and Zaroban 1998; Burton 1999a; BNF, unpublished 2002).

(H) Deer Creek from the confluence with the Deadwood River upstream 16.5 km (10 mi) to the headwaters contains spawning and early rearing habitat (Allen 1998; Jimenez and Zaroban 1998; Burton 1999a; BNF, unpublished 2002). An unnamed creek from the confluence with Deer Creek (3.3 km (2.0 mi) upstream of the confluence of Deer Creek with the Deadwood River) upstream 2.0 km (1.3 mi) to the headwaters provides bull trout spawning and early rearing habitat (BNF, unpublished 2002). An unnamed creek from the confluence with Deer Creek (5.8 km (3.6 mi) upstream of the confluence of Deer Creek with the Deadwood River) upstream 2.0 km (1.3 mi) to the headwaters provides spawning and rearing habitat (BNF, unpublished 2002). North Fork Deer Creek from the confluence with Deer Creek upstream 5.5 km (3.4 mi) to the headwaters contains spawning and early rearing habitat (Allen 1998; Jimenez and Zaroban 1998; Burton 1999a; BNF, unpublished 2002). An unnamed creek from the confluence with Deer Creek (7.8 km (4.8 mi) upstream of the confluence of Deer Creek with the Deadwood River) upstream 1.8 km (1.1 mi) to the headwaters supports spawning and rearing habitat (Jimenez and Zaroban 1998; Burton 1999a; BNF, unpublished 2002).

(I) Goat Creek from the confluence with the Deadwood River upstream 6.4 km (4.0 mi) to the headwaters provides spawning and early rearing habitat (BNF, unpublished 2002) and is habitat essential to the conservation of bull trout (USFWS 2002).

(J) Bitter Creek from the confluence with the Deadwood River upstream 6.0 km (3.7 mi) to the headwaters is habitat necessary to provide for expansion of bull trout populations (USFWS 2002), and is known to contain primary constituent elements for bull trout (Jimenez and Zaroban 1998; Burton 1999a).

(K) Stratton Creek from the confluence with the Deadwood River upstream 5.3 km (3.3 mi) to the headwaters provides spawning and early rearing habitat (Allen 1998) and is essential to the conservation of bull trout (USFWS 2002).

(L) East Fork Deadwood River from the confluence with the Deadwood River upstream 0.4 km (0.2 mi) to a waterfall barrier is habitat necessary to provide for expansion of bull trout populations (USFWS 2002), and is known to contain primary constituent elements for bull trout (Jimenez and Zaroban 1998; Burton 1999a).

(v) Middle Fork Payette River CHSU

This CHSU includes the watersheds upstream from the confluence with the Payette River. There are one local and five potential local populations identified within the Middle Fork Payette River CHSU. Approximate landownership in this CHSU is as follows: 90 percent Federal, 7 percent private, and 3 percent State.

(A) The Middle Fork Payette River from its confluence with the South Fork Payette River upstream 56.3 km (35.0 mi) to the confluence with Bull Creek provides FMO habitat (Jimenez and Zaroban 1998). Middle Fork Payette River from the confluence with Bull Creek upstream 6.8 km (4.2 mi) to the confluence with Ligget Creek provides FMO habitat and may provide spawning and rearing habitat (Jimenez and Zaroban 1998; USFS 2000b, 2002; J. Roy, USFWS, *in litt.*, 2002). From Ligget Creek upstream 10.8 km (6.7 mi) to the headwaters the Middle Fork Payette River provides bull trout spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 2000b, 2002; BNF, unpublished 2002; J. Roy, *in litt.*, 2002). An unnamed creek from its confluence with the Middle Fork Payette River (71.5 km (44.4 mi) upstream of the confluence of the Middle Fork Payette River and the South Fork Payette River) upstream 7.2 km (4.5 mi) to the headwaters is known to support bull trout spawning and early rearing (Jimenez and Zaroban 1998; USFS 2000b, 2002; BNF, unpublished 2002; J. Roy, *in litt.*, 2002). An unnamed creek from its confluence with the Middle Fork Payette River (72.5 km (45.0 mi) upstream of the confluence of the

Middle Fork Payette River and the South Fork Payette River) upstream 3.2 km (2.0 mi) to the headwaters provides occupied spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 2000b, 2002; BNF, unpublished 2002; J. Roy, *in litt.*, 2002). An unnamed creek from its confluence with the Middle Fork Payette River (73.3 km (45.5 mi) upstream of the confluence of the Middle Fork Payette River and the South Fork Payette River) upstream 3.2 km (2.0 mi) to its headwaters provides spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 2002; BNF, *in litt.*, 2002; J. Roy, *in litt.*, 2002).

(B) Lightning Creek from the confluence with the Middle Fork Payette River upstream 21.7 km (13.4 mi) to the headwaters, and Onion Creek from the confluence with Lightning Creek upstream 7.9 km (4.9 mi) to the headwaters of Onion Creek is known to contain primary constituent elements for bull trout (Jimenez and Zaroban 1998; USFS 2000b), and is essential to habitat to provide for expansion of populations essential to the conservation of the species (USFWS 2002).

(C) Silver Creek from the confluence with the Middle Fork Payette River upstream to the headwaters; Peace Creek from the confluence with Silver Creek upstream 6.8 km (4.2 mi) to the headwaters; Valley Creek from the confluence with Peace Creek upstream 8.5 km (5.3 mi) to the headwaters; Ucon Creek from the confluence with Silver Creek upstream 5.0 km (3.1 mi) to the headwaters, and Long Fork Silver Creek from the confluence with Silver Creek upstream 8.5 km (5.3 mi), all are known to contain primary constituent elements for bull trout (Jimenez and Zaroban 1998; USFS 2000b) and are required for expanded bull trout populations that are essential to the conservation of the species (USFWS 2002).

(D) Bull Creek from the confluence with the Middle Fork Payette River upstream 19.5 km (12 mi) to the headwaters provides FMO habitat in the lower reaches and spawning and rearing habitat in the upper areas (Jimenez and Zaroban 1998; USFS 2000b, 2002; J. Roy, *in litt.*, 2002). Oxtail Creek from the confluence with Bull Creek upstream 4.5 km (2.8 mi) to the headwaters provides spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 2000b, 2002; J. Roy, *in litt.*, 2002). Sixteen-to-one Creek from the confluence with Bull Creek upstream 7.8 km (4.8 mi) to the headwaters contains spawning and early rearing habitat (J. Roy, USFWS, *in litt.*, 2002; USFS 2002b).

(vi) Weiser River CHSU

The Weiser River CHSU in Washington and Adams counties in southwestern Idaho includes all watersheds upstream of and including the Little Weiser River watershed. There are five local and seven potential local populations identified within the CHSU. Approximate landownership in the CHSU is as follows: 53 percent Federal, 39 percent private, and 8 percent State.

(A) The Weiser River from the confluence with the Little Weiser River upstream 64.5 km (40.0 mi) to the confluence of the East Fork Weiser River provides connectivity between the Upper Hornet Creek and East Fork Weiser River local populations, and the Pine Creek, Rush Creek, West Fork Weiser River, and Lost Creek potential local populations. The Little Weiser River from the confluence with the Weiser River upstream 55.6 km (34.5 mi) to the confluence with Anderson Creek provides connectivity between the Upper Little Weiser River, Anderson Creek, and Sheep Creek local populations, and the Weiser River and its associated local and potential local populations. The upper Little Weiser River from the confluence with Anderson Creek upstream 16.2 km (10.0 mi) to the headwaters support bull trout spawning and early rearing (DuPont and Kennedy 2000).

(B) Anderson Creek from the confluence with the Little Weiser River upstream 11.2 km (7.0 mi) to the headwaters provides spawning and early rearing habitat (Adams 1994; DuPont and Kennedy 2000).

(C) Sheep Creek from the confluence with Anderson Creek upstream 16.2 km (10.0 mi) to the headwaters provides spawning and early rearing habitat (Adams 1994; DuPont and Kennedy 2000).

(D) East Fork Pine Creek from the confluence with Pine Creek upstream 17.1 km (10.6 mi) to the headwaters contains primary constituent elements for bull trout (DuPont and Kennedy 2000; McGee *et al.* 2001) and is essential to the conservation of bull trout (USFWS 2002).

(E) Rush Creek from the confluence with the Weiser River upstream 30.0 km (18.6 mi) to the headwaters contains primary constituent elements for bull trout (Veatch *et al.* 1998; DuPont and Kennedy 2000) and Williams and Veach (1999) identify Rush Creek as a watershed where bull trout spawning and rearing is likely to occur, although it has not yet been documented. This habitat is essential to the conservation of bull trout (USFWS).

(F) The Middle Fork Weiser River from its confluence with the Weiser River upstream 40.9 km (25.4 mi) contains primary constituent elements for bull trout, although brook trout presence is problematic (D. Burns, USFS, pers. comm., 2002), and is essential to provide for the recovered distribution of bull trout (USFWS 2002).

(G) Hornet Creek from the confluence with the Weiser River upstream 24.7 km (15.3 mi) to the confluence with Disappointment Creek is suspected to provide FMO habitat (J. DuPont, Idaho Department of Lands, *in litt.*, 2000), and is essential to providing connectivity within the Weiser River CHSU. Hornet Creek from the confluence with Disappointment Creek upstream 7.8 km (4.8 mi) to the headwaters provides spawning and early rearing habitat (J. DuPont, *in litt.*, 2000). Olive Creek from the confluence of Olive Creek and Hornet Creek upstream 8.4 km (5.2 mi) to the headwater provides FMO habitat in the lower reaches, and spawning and rearing habitat in the upper reaches (J. DuPont, *in litt.*, 1998). An unnamed creek from the confluence with Olive Creek (3.3 km (2.0 mi) upstream of the confluence of Olive Creek with Hornet Creek) upstream 1.8 km (1.1 mi) to the headwaters provides spawning and early rearing habitat (J. DuPont, *in litt.*, 2000). An unnamed creek from the confluence with Olive Creek (5.3 km (3.3 mi) upstream of the confluence of Olive Creek with Hornet Creek) upstream 2.6 km (1.6 mi) to the headwaters is habitat essential to provide for the recovered distribution of bull trout (USFWS 2002). It is suspected to provide bull trout FMO habitat below 1,524 m (5,000 feet (ft)) in elevation, and habitat suitable for spawning and rearing above 1,524 m (5,000 ft) in elevation (J. DuPont, *in litt.*, 2000). Placer Creek from the confluence with Hornet Creek upstream 5.1 km (3.2 mi) to the headwaters provides bull trout spawning and rearing habitat (J. DuPont, *in litt.*, 2000). North Creek from the confluence with Placer Creek upstream 3.4 km (2.1 mi) to the headwaters provides spawning and rearing habitat (J. DuPont, *in litt.*, 2000). Disappointment Creek from the confluence with Hornet Creek upstream 4.2 km (2.6 mi) to the headwaters is habitat essential to provide for the recovered distribution of bull trout (USFWS 2002), and is suspected to provide bull trout FMO habitat below 1,524 m (5,000 ft) in elevation, and habitat suitable for spawning and rearing above 1,524 m (5,000 ft) (J. DuPont, *in litt.*, 2000). Grouse Creek from the confluence with Hornet Creek

upstream 5.2 km (3.2 mi) to the headwaters is habitat essential to provide for the recovered distribution of bull trout (USFWS 2002), and is suspected to provide bull trout FMO habitat below 1,524 m (5,000 ft) in elevation, and habitat suitable for spawning and rearing above 1,524 m (5,000 ft) in elevation (J. DuPont, *in litt.*, 2000). Mill Creek from the confluence with Hornet Creek upstream to the confluence with West Fork Mill Creek is suspected to provide bull trout FMO habitat (J. DuPont, *in litt.*, 2000). Above that point, upstream 4.3 km (2.7 mi) is habitat essential to provide for the recovered distribution of bull trout (USFWS 2002), and is suspected to provide bull trout FMO habitat below 1,524 m (5,000 ft) in elevation, and habitat suitable for spawning and rearing above 1,524 m (5,000 ft) in elevation (J. DuPont, *in litt.*, 2000).

(H) West Fork Weiser River from the confluence with the Weiser River upstream 13.8 km (8.6 mi) to the confluence with Lost Creek is essential habitat for providing connectivity within the Weiser River CHSU (USFWS 2002). Above this point, upstream to the headwaters is habitat known to contain primary constituent elements for bull trout (DuPont and Kennedy 2000; McGee *et al.* 2001) and essential to the recovered distribution of bull trout (USFWS 2002).

(I) Lost Creek from the confluence with the West Fork Weiser River upstream 34.5 km (21.5 mi) to the headwaters is habitat essential to provide for the recovered distribution of bull trout (USFWS 2002), and is known to contain primary constituent elements as identified for bull trout (DuPont and Kennedy 2000; D. Olson, USFS, pers. comm., 2002). Lost Valley Reservoir (296 ha; 732 ac) provides connectivity between potential spawning and rearing habitats; bull trout are not known to currently occupy the reservoir.

(J) East Fork Weiser River from the confluence with the Weiser River upstream 24.6 km (15.3 mi) to the headwaters is spawning and rearing habitat (Adams 1994; DuPont and Kennedy 2000; McGee *et al.* 2001). Dewey Creek from the confluence with the East Fork Weiser River to the headwaters provides spawning and rearing habitat (Adams 1994; DuPont and Kennedy 2000; McGee *et al.* 2001).

(vii) Upper South Fork Payette River CHSU

The Upper South Fork Payette River CHSU in Boise and Valley counties in southwestern Idaho includes all watersheds upstream of Big Falls on the South Fork Payette River, including the

Deadwood River drainage downstream of Deadwood Dam. There are nine local populations identified within this CHSU. Approximate landownership in the CHSU is as follows: nearly 100 percent Federal, and less than 1 percent private.

(A) The South Fork Payette River from its confluence with the Middle Fork Payette River upstream 96.8 km (60.1 mi) to the confluence with Baron Creek provides FMO habitat and connectivity between the Scott Creek, Whitehawk Creek, Clear Creek, Eightmile Creek, Wapiti Creek, Canyon Creek, Tenmile Creek, Chapman Creek, and Upper South Fork Payette River local populations, as well as a migratory connection between populations in the South Fork Payette River and Middle Fork Payette River CHSUs (Jimenez and Zaroban 1998; USFS 1999c; Stovall 2001; J. Jimenez, USFS, pers. comm., 2002). Deadwood River from the confluence with the South Fork Payette River upstream 36.6 km (22.7 mi) to Deadwood Dam provides FMO habitat and connectivity between other local populations (Jimenez and Zaroban 1998; USFS 1999c; Stovall 2001). South Fork Payette River from the confluence with Baron Creek upstream 8.5 km (5.2 mi) to the confluence of South Fork Payette River and an unnamed creek provides FMO habitat, and may also support bull trout spawning and early rearing. (Jimenez and Zaroban 1998; USFS 1999c). South Fork Payette River from point upstream 14.5 km (9.0 mi) to the confluence with Benedict Creek contains spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). Baron Creek from the confluence with the South Fork Payette River upstream 12.3 km (7.6 mi) to the confluence with an unnamed creek provides spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). North Fork Baron Creek from the confluence with Baron Creek upstream 2.7 km (1.7 mi) contains spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

(B) Scott Creek from the confluence with Deadwood River upstream 12.2 km (7.6 mi) to the headwaters provides FMO habitat in the lower reaches (USFS 1999c; Jimenez and Zaroban 1998), and spawning and early rearing habitat in the upper reaches (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). South Fork Scott Creek from the confluence with Scott Creek upstream 5.7 km (3.5 mi) to the headwaters provides spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

Smith Creek from the confluence with Scott Creek upstream 4.6 km (2.9 mi) to the headwaters contains bull trout spawning and rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

(C) Ninemile Creek from the confluence with the Deadwood River upstream 9.2 km (5.7 mi) is known to contain primary constituent elements for bull trout (Jimenez and Zaroban 1998; USFS 1999c) and is essential to provide for the recovered distribution of bull trout (USFWS 2002).

(D) An unnamed creek from its confluence with the Deadwood River (29.0 km (18.0 mi) upstream of the confluence of the Deadwood River with the South Fork Payette River) upstream 2.2 km (1.3 mi) to the headwaters, No Man Creek from the confluence with the Deadwood River upstream 4.7 km (2.9 mi) to the confluence with an unnamed creek, and another unnamed creek, from the confluence with the Deadwood River (34.0 km (21.1 mi) upstream of the confluence of the Deadwood River with the South Fork Payette River) upstream 1.8 km (1.1 mi) are known to contain primary constituent elements for bull trout (Jimenez and Zaroban 1998; USFS 1999c) and provide habitat essential to the conservation of bull trout (USFWS 2002).

(E) Whitehawk Creek from the confluence with Deadwood River to the confluence of Whitehawk Creek and an unnamed creek 8.3 km (5.2 mi) upstream from the confluence of Whitehawk Creek and Deadwood River (for 8.3 km (5.2 mi)). Whitehawk Creek lies within Valley County. Whitehawk Creek is known to contain primary constituent elements as identified for bull trout (Jimenez and Zaroban 1998; USFS 1999c). North Fork Whitehawk Creek from the confluence with Whitehawk Creek to the headwaters of North Fork Whitehawk Creek (for 5.3 km (3.3 mi)). North Fork Whitehawk Creek lies within Valley County. North Fork Whitehawk Creek is known to contain primary constituent elements as identified for bull trout (Jimenez and Zaroban 1998; USFS 1999c).

(F) Warm Springs Creek from the confluence with the Deadwood River upstream 11.4 km (7.1 mi) to the headwaters provides FMO habitat, and may also support spawning and rearing in the lower reaches, and spawning and rearing habitat in the upper reaches (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). East Fork Warm Springs Creek from the confluence with Warm Springs Creek upstream 8.8 km (5.5 mi) to the headwaters provides spawning and rearing habitat (Jimenez and Zaroban

1998; USFS 1999c; BNF, unpublished 2002). An unnamed creek from the confluence with East Fork Warm Springs Creek (5.0 km (3.1 mi) upstream of the confluence of East Fork Warm Springs Creek with Warm Springs Creek) upstream 1.9 km (1.2 mi) to the headwaters contains spawning and rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). Middle Fork Warm Springs Creek from the confluence with Warm Springs Creek upstream 4.3 km (2.7 mi) to the supports bull trout spawning and earing (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). An unnamed creek from the confluence with Middle Fork Warm Springs Creek (1.8 km (1.1 mi) upstream of the confluence of Middle Fork Warm Springs Creek with Warm Springs Creek) upstream 4.0 km (2.5 mi) to the headwaters supports spawning and early rearing (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

(G) Wilson Creek from the confluence with Deadwood Reservoir upstream 16.9 km (10.5 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002).

(H) Clear Creek from the confluence with the South Fork Payette River upstream 12.5 km (7.8 mi) to the confluence with O'Keefe Creek provides FMO habitat (Jimenez and Zaroban 1998; USFS 1999c; Stovall 2001). Clear Creek from the confluence with O'Keefe Creek upstream 18.2 km (11.3 mi) to the confluence of Clear Creek, and an unnamed creek, support bull trout spawning and early rearing (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). Long Creek from the confluence with Clear Creek upstream 5.1 km (3.2 mi) to the confluence with an unnamed creek contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002). An unnamed creek 5.1 km (3.2 mi) upstream from the confluence with Long Creek, and Clear Creek upstream 1.7 km (1 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002). South Fork Clear Creek from the confluence with Clear Creek upstream 7.5 km (4.7 mi) to the headwaters supports bull trout spawning and early rearing (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

(I) Kettle Creek from the confluence with the South Fork Payette River upstream 5.2 km (3.3 mi) to the headwaters provides spawning and rearing habitat (BNF, unpublished 2002).

(J) Eightmile Creek from the confluence with the South Fork Payette River upstream 7.4 km (4.6 mi) to the confluence with an unnamed creek provides FMO habitat (Jimenez and Zaroban 1998; USFS 1999c); above this point upstream to the headwaters contains spawning and rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). East Fork Eightmile Creek from the confluence with Eightmile Creek upstream to the confluence with an unnamed creek 4.2 m (2.6 mi) from the confluence of East Fork Eightmile Creek with Eightmile Creek provides FMO habitat (Jimenez and Zaroban 1998; USFS 1999c). East Fork Eightmile Creek from this point upstream to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002). An unnamed creek from the confluence with Eightmile Creek (4.5 km (2.8 mi) upstream of the confluence of Eightmile Creek with the South Fork Payette River) upstream 4.8 km (3.0 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002). Another unnamed creek from its confluence with Eightmile Creek (7.3 km (4.5 mi) upstream of the confluence of Eightmile Creek with the South Fork Payette River) upstream 3.7 km (2.3 mi) to the headwaters provides spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). Another unnamed creek from the confluence with Eightmile Creek (7.5 km (4.7 mi) upstream of the confluence of Eightmile Creek with the South Fork Payette River) upstream 3.4 km (2.1 mi) to the headwaters contains spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

(K) Tenmile Creek from the confluence with the South Fork Payette River upstream 7.2 km (4.5 mi) to the confluence with an unnamed creek provides FMO habitat (Jimenez and Zaroban 1998; USFS 1999c), and above this point to the headwaters is a combination of FMO and spawning and rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002). An unnamed creek from the

confluence with Tenmile Creek (9.8 km (6.1 mi) upstream of the confluence of Tenmile Creek with the South Fork Payette River) upstream 3.4 km (2.1 mi) to the headwaters is habitat essential to the recovered distribution of bull trout (USFWS 2002), and contains primary constituent elements for bull trout (Jimenez and Zaroban 1998; USFS 1999c). An unnamed creek from the confluence with Tenmile Creek (11.5 km (7.1 mi) upstream of the confluence of Tenmile Creek with the South Fork Payette River) upstream 2.5 km (1.5 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002). Another unnamed creek from the confluence with Tenmile Creek (13.3 km (8.2 mi) upstream of the confluence of Tenmile Creek with the South Fork Payette River) upstream 2.7 km (1.7 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002).

(L) Chapman Creek from the confluence with the South Fork Payette River upstream 6.1 km (3.8 mi) to the headwaters of Chapman Creek supports bull trout spawning and early rearing (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

(M) Warm Springs Creek from the confluence with the South Fork Payette River upstream 4.8 km (3 mi) to the confluence with Bush Creek provides FMO habitat. Upstream 14.3 km (8.9 mi) of this point to the confluence with Gates Creek is habitat essential to the recovered distribution of bull trout (USFWS 2002), and is known to contain primary constituent elements as identified for bull trout (Jimenez and Zaroban 1998; USFS 1999c). Gates Creek from the confluence with Warm Springs Creek upstream 6.8 km (4.3 mi) to the headwaters is habitat essential to the recovered distribution of bull trout (USFWS 2002), and has recently been found to support bull trout spawning and early rearing (BNF, unpublished 2002).

(N) Canyon Creek from the confluence with the South Fork Payette River upstream 17.1 km (10.6 mi) to the headwaters provides spawning and rearing habitat (BNF, unpublished 2002). South Fork Canyon Creek from the confluence with Canyon Creek upstream 2.4 km (1.5 mi) to the confluence of South Fork Canyon Creek and an unnamed creek supports bull trout spawning and rearing (BNF, unpublished 2002). North Fork Canyon

Creek from the confluence with Canyon Creek upstream 1.9 km (1.2 mi) to the confluence with an unnamed creek provides spawning and early rearing habitat (BNF, unpublished 2002). An unnamed creek from the confluence with North Fork Canyon Creek (2 km (1.2 mi) upstream of the confluence of North Fork Canyon Creek with Canyon Creek) upstream 4.6 km (2.8 mi) contains spawning and rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

(O) Wapiti Creek from the confluence with the South Fork Payette River upstream 5.5 km (3.4 mi) to the confluence of Wapiti Creek and an unnamed creek contains spawning and early rearing habitat (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

(P) Trail Creek from the confluence with the South Fork Payette River upstream 5.8 km (3.6 mi) to the confluence with an unnamed creek supports bull trout spawning and early rearing (Jimenez and Zaroban 1998; USFS 1999c; BNF, unpublished 2002).

(viii) North Fork Payette River CHSU

The North Fork Payette River CHSU in Valley County in southwestern Idaho includes the North Fork Payette River watershed upstream of Cascade Dam. There are one local and six potential local populations identified within the North Fork Payette River CHSU, all of which are essential for recovery (USFWS 2002). The CHSU includes 229.76 km (142.77 mi) of streams that are proposed as critical habitat, which represents approximately 17.28 percent of the total stream miles in the North Fork Payette River CHSU. Approximate landownership is as follows: 47 percent Federal, 34 percent private, and 10 percent State. Critical habitat includes all stream segment units described below which provide FMO habitat, and allow for the maintenance of genetic exchange by local and potential local populations both within and between CHSUs.

(A) Gold Fork River from the confluence with Davis Creek upstream 20.2 km (12.5 mi) to the confluence with the North and South Forks Gold Fork River. This reach provides migratory habitat and connectivity between the Gold Fork local population and the Kennally Creek potential local population. South Fork Gold Fork River from the confluence with the Gold Fork River upstream 7.4 km (4.6 mi) to the headwaters provides spawning and rearing habitat (Steed 1999; USFS 2000c). North Fork Gold Fork River from the confluence with the Gold Fork River upstream 15.9 km (9.9 mi) to the

headwaters provides spawning and rearing habitat (Steed 1999; USFS 2000c). Foolhen Creek from the confluence with Gold Fork River upstream 8.6 km (5.3 mi) to the headwaters, and Spruce Creek from the confluence with Gold Fork River upstream 2.8 km (1.75 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998), and is essential to provide for the recovered distribution of the species (USFWS 2002). Lodgepole Creek from the confluence with Gold Fork River upstream 5.0 km (3.1 mi) to the headwaters and an unnamed creek from the confluence with Gold Fork River (7.8 km (4.8 mi) upstream of the confluence of the North Fork Gold Fork River with Gold Fork River) upstream 3.1 km (1.9 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002). An unnamed creek from the confluence with the North Fork Gold Fork River (8.6 km (5.3 mi) upstream of the confluence of the North Fork Gold Fork River with Gold Fork River) upstream 2.9 km (1.8 mi) to the headwaters provides spawning and rearing habitat and is suspected to support bull trout spawning and early rearing (Steed 1999; Roy, *in litt.*, 2002). An unnamed creek from the confluence with the North Fork Gold Fork River (9.0 km (5.6 mi) upstream of the confluence of the North Fork Gold Fork River with Gold Fork River) upstream 3.2 km (2.0 mi) to the headwaters supports bull trout spawning and early rearing (Steed 1999; USFS 2000c). An unnamed creek from the confluence with the the North Fork Gold Fork River (9.3 km (5.7 mi) upstream of the confluence of the North Fork Gold Fork River with Gold Fork River) upstream 4.7 km (2.9 mi) to the headwaters provides spawning and early rearing habitat (Steed 1999; USFS 2000c).

(B) Kennally Creek from the confluence with the Gold Fork River upstream 21.3 km (13.2 mi) to the confluence with the North and South Forks, and Rapid Creek from the confluence with Kennally Creek upstream 17.0 km (10.6 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the conservation of the species (USFWS 2002).

(C) Cascade Reservoir (7,246 ha (17,905 ac)) will provide FMO habitat for Gold Fork River bull trout, and connectivity between the Gold Fork local population and the Lake Fork, North Fork Lake Fork, and South Fork

Lake Fork potential local populations as recovery actions are implemented (J. Roy, *in litt.*, 2002; USFWS 2002). Bull trout are currently entrained through an irrigation diversion on Gold Fork River into Cascade Reservoir.

(D) North Fork Payette River from the confluence with Cascade Reservoir upstream 1.4 km (0.9 mi) to the confluence with Mud Creek. As recovery actions are implemented, the North Fork Payette River will provide FMO habitat and connectivity between the Gold Fork local population, and the Lake Fork, North Fork Lake Fork, and South Fork Lake Fork potential local populations (USFWS 2002). Lake Fork from the confluence with Mud Creek upstream 68.6 km (42.6 mi) to the confluence with Little Payette Lake. As recovery actions are implemented, this reach will provide FMO habitat and connectivity between the Gold Fork local population, and the Lake Fork, North Fork Lake Fork, and South Fork Lake Fork potential local populations (USFWS 2002). Little Payette Lake (582 ha (1,439 ac)) will provide FMO habitat for Lake Fork, North Fork Lake Fork, and South Fork Lake Fork potential local populations, and will provide connectivity between these potential local populations and the Gold Fork local population as recovery actions are implemented (USFWS 2002). Lake Fork from the confluence with Little Payette Lake upstream 16.9 km (10.5 mi) to the confluence with the North and South Forks Lake Fork provides habitat essential to the recovered distribution for bull trout (USFWS 2002) and is known to contain primary constituent elements as identified for the species (USFS 1998c; 2001c). North Fork Lake Fork from the confluence with Lake Fork upstream 16.3 km (10.1 mi) to the headwaters provides suitable habitat for bull trout spawning and rearing (USFS 1998c, 2001c). South Fork Lake Fork from the confluence with Lake Fork upstream 5.7 km (3.5 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002).

(ix) Squaw Creek CHSU

The Squaw Creek CHSU in Gem, Boise, and Valley counties in southwestern Idaho includes all watersheds in Squaw Creek upstream from its confluence with the Payette River. Bull trout in this CHSU are primarily resident fish, although they have recently been found in the lower reaches of Squaw Creek, suggesting a migratory component (Steed 1999).

There are two local and three potential local populations identified within the Squaw Creek CHSU. Approximate landownership is as follows: 48 percent Federal, 47 percent private, and 5 percent State. We are proposing critical habitat designation of 192.41 km (119.56 mi) of stream, which represents approximately 28 percent of the total stream miles in the Squaw Creek CHSU. Critical habitat within the Squaw Creek CHSU includes all stream segment units described below which provide FMO habitat, and allow for the maintenance of genetic exchange by local and potential local populations both within and between CHSUs.

(A) Squaw Creek from its confluence with the Payette River upstream 75.9 km (47.2 mi) to the confluence with Cold Spring Creek provides connectivity between the Squaw Creek and Third Fork Squaw Creek local populations, and the Second Fork Squaw Creek, and Sagehen Creek potential local populations. Squaw Creek from the confluence with Cold Spring Creek upstream 19.1 km (11.9 mi) to the headwaters contains spawning and early rearing habitat (Steed 1999). Pole Creek from the confluence with Squaw Creek upstream 4.1 km (2.5 mi) to the headwaters also provides spawning and rearing habitat (Steed 1999). An unnamed creek from the confluence with Squaw Creek (83.8 km (52.0 mi) upstream of the confluence of Squaw Creek with the Payette River) upstream 2.6 km (1.6 mi) to the headwaters provides spawning and early rearing habitat (Steed 1999). Another unnamed creek from the confluence with Squaw Creek (86.0 km (53.0 mi) upstream of the confluence of Squaw Creek with the Payette River) upstream 3.6 km (2.2 mi) to the headwaters also provides spawning and rearing habitat (Burton 1999b; 1999; Steed 1999). An unnamed creek from the confluence with the previous unnamed creek (0.5 km (0.3 mi) upstream of the confluence of the previous unnamed creek with Squaw Creek) upstream to the headwaters provides habitat essential to the recovered distribution of bull trout (USFWS 2002), and is known to contain primary constituent elements as identified for bull trout (Burton 1999b; Steed 1999). Poison Creek from the confluence with Squaw Creek upstream 2.7 km (1.7 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002).

(B) Third Fork Squaw Creek from the confluence with Squaw Creek upstream 10.6 km (6.6 mi) to the confluence with

an unnamed creek provides FMO habitat (Steed 1999). From this point upstream 6.6 km (4.1 mi) Third Fork Squaw Creek provides spawning and early rearing habitat (Burton 1999b; Steed 1999). An unnamed creek from the confluence with Third Fork Squaw Creek (10.8 km (6.7 mi) upstream of the confluence of Third Fork Squaw Creek with Squaw Creek) upstream 7.3 km (4.5 mi) to the headwaters provides spawning and early rearing habitat (Burton 1999b; Steed 1999). Another unnamed creek from the confluence with the previous unnamed creek (1.8 km (1.1 mi) upstream of the confluence of the previous unnamed creek with Third Fork Squaw Creek) upstream 4.0 km (2.5 mi) to the headwaters also provides spawning and rearing habitat (Burton 1999b). Another unnamed creek from the confluence with the previously described unnamed creek (2.8 km (1.7 mi) upstream of the confluence of the previous unnamed creek with Third Fork Squaw Creek) upstream 1.8 km (1.1 mi) to the headwaters contains bull trout primary constituent elements (Jimenez and Zaroban 1998; USFS 1999c), and is essential to provide for the recovered distribution of the species (USFWS 2002). An unnamed creek from the confluence with Third Fork Squaw Creek (12 km (7.5 mi) upstream of the confluence of Third Fork Squaw Creek with Squaw Creek) upstream 3.2 km (2.0 mi) to the headwaters provides spawning and rearing habitat (Burton 1999b; Steed 1999). Second Fork Squaw Creek from the confluence with Squaw Creek upstream 11.3 km (7.0 mi) to the confluence with Sage Hen Creek provides FMO habitat (Steed 1999), and from this point upstream 6.7 km (4.2 mi) to the headwaters provides habitat essential to the recovered distribution of bull trout (USFWS 2002), and is known to contain primary constituent elements for the species (Burton 1999b; Steed 1999). Renwick Creek from the confluence with Second Fork Squaw Creek upstream 6.1 km (3.8 mi) to the headwaters and Antelope Creek from the confluence with Second Fork Squaw Creek upstream 6.1 km (3.8 km) to the headwaters provides habitat essential to the recovered distribution of bull trout (USFWS 2002), and is known to contain primary constituent elements for the species (Burton 1999b; Steed 1999).

(C) Sage Hen Creek from the confluence with Second Fork Squaw Creek upstream 5.2 km (3.2 mi) to the dam on Sage Hen Reservoir provides FMO habitat (Steed 1999). Sage Hen Creek from the dam on Sage Hen Reservoir upstream 7.4 km (4.6 mi) to the headwaters provides habitat

essential to the recovered distribution of bull trout (USFWS 2002), and is known to contain primary constituent elements for bull trout (Burton 1999b; Steed 1999). An unnamed creek from the confluence with Sage Hen Creek (5.3 km (3.3 mi) upstream of the confluence of Sage Hen Creek with Second Fork Squaw Creek) upstream 2.9 km (1.4 mi) to the headwaters provides habitat essential to the recovered distribution of bull trout (USFWS 2002), and is known to contain primary constituent elements for the species (Burton 1999b; Steed 1999). Joes Creek from the confluence with Sage Hen Creek upstream 5.3 km (3.3 mi) to the headwaters of Joes Creek provides habitat essential to the recovered distribution of bull trout (USFWS 2002), and is known to contain primary constituent elements for bull trout (Burton 1999b; Steed 1999). Sage Hen Reservoir (96 ha; 238 ac) provides suitable FMO habitat (Steed 1999; Burton 1999) to provide for the recovered distribution of bull trout (USFWS 2002).

(22) Unit 18: Little Lost River Basin

The Little Lost River Unit is within Butte, Custer, and Lemhi counties in east-central Idaho. Approximately 184.6 km (115.4 mi) of stream in the Little Lost River Basin is proposed for critical habitat designation. Approximately 76 percent of the unit is located on Federal land (BLM and USFS), 22 percent is on private land, and 2 percent is on State land. There are 10 known local populations in the Little Lost River Basin and the Draft Recovery Plan (USFWS 2002) states that the persistence of all 10 populations is needed for species' recovery. The following stream segments are proposed for designation as critical habitat in the Little Lost River unit:

(i) The Little Lost River, beginning at the flood control structure at rkm 18.4 (rmi 11.4) and continuing upstream for 84.3 km (52.4 mi) to source springs at rkm 102.7 (rmi 63.8). The river from the flood control structure to Iron Creek (at rkm 93.3 (rmi 57.9)) is an important migratory corridor, as well as a key foraging and rearing area for sub-adult and adult fluvial bull trout associated with upstream local populations (Gamett 1999). The Little Lost River headwaters above Iron Creek, including 0.8 km (0.5 mi) of the Right Fork Little Lost River and 2.1 km (1.3 mi) of Firebox Creek, are occupied spawning and rearing habitat and collectively support a local population. (**Note:** USGS and STREAMNET maps show the Little Lost River transforming into Sawmill Creek in its upstream reaches. However, the USFS Lost River Ranger District

maps show the Little Lost River continuing under that name up to its headwaters. We have described proposed critical habitat in accordance with the latter).

(ii) Badger Creek from its confluence with the Little Lost River (at rkm 45.6 (rmi 28.3)) upstream 11.7 km (7.3 mi) to its source springs and including the Bunting Canyon Creek tributary. There is a headcut on Bunting Canyon Creek approximately 300 m (984 ft) upstream of its mouth that forms a small barrier. Badger Creek and Bunting Canyon Creek below the headcut provide spawning and rearing habitat for a known bull trout local population (Gamett 1999). The 3.1 km (1.9 mi) segment of Bunting Canyon Creek above the headcut is not currently known to be occupied, but is identified in the Draft Recovery Plan (USFWS 2002) as essential to providing for the recovered distribution of bull trout.

(iii) Williams Creek from its confluence with the Little Lost River (at rkm 54.1) upstream 5.1 km (3.2 mi) to the confluence with an unnamed tributary. The unnamed tributary from its confluence with Williams Creek upstream 1.1 km (0.7 mi) to its source springs. A local bull trout population exists in Williams Creek above an irrigation diversion at rkm 1.3 (rmi 0.8) and spawning and rearing occurs from rkm 3.4 to rkm 5.1 as well as in the entire length of the unnamed tributary (Gamett 1999). The Draft Recovery Plan (USFWS 2002) identifies the 1.3 km (0.8 mi) stream reach below the diversion as important to restoring connectivity to this local population, and providing additional habitat needed to achieve target population levels in this area.

(iv) Wet Creek from its confluence with the Little Lost River (at rkm 56.8 (rmi 35.3)) upstream for a distance of 28.8 km (18.0 mi) to a barrier falls above Hilt Creek, and including 7.0 km (4.4 mi) of the Big Creek tributary. Wet Creek currently supports a local bull trout population, with spawning and rearing occurring in the uppermost 3.2 km (2.0 mi). Although bull trout have not been recently documented in Big Creek, spawning and rearing habitat has been identified in its upper reaches (Gamett 1999).

(v) Warm Creek from its confluence with the Little Lost River (at rkm 81.9 (rmi 50.9)) upstream for 3.4 km (2.1 mi) to its source springs. This stream supports a known bull trout local population, and spawning and rearing occurs in the upper 2.7 km (1.3 mi) (Gamett 1999).

(vi) Squaw Creek from its confluence with the Little Lost River (at rkm 86.2 (rmi 53.5)) upstream for 6.6 km (4.1 mi)

to its source spring and including 0.6 km (0.4 mi) of the North Fork Squaw Creek, and 3.0 km (1.9 mi) of an unnamed tributary that joins Squaw Creek at rkm 4.2 (rmi 2.6). These streams are currently occupied and collectively are considered a distinct local population (USFWS 2002); all but the lowest 0.2 km (0.1 mi) of Squaw Creek contain spawning and rearing habitat.

(vii) Mill Creek from its confluence with the Little Lost River (at rkm 89.6 (rmi 55.6)) upstream for 4.5 km (2.8 mi) to a barrier falls. This stream supports a known bull trout local population and all but the lowest 0.2 km (0.1 mi) is spawning and rearing habitat (Gamett 1999).

(viii) Iron Creek from its confluence with the Little Lost River (at rkm 93.3 (rmi 57.9)) upstream for 3.2 km (2.0 mi) and including the following tributaries: 1.0 km (0.6 mi) of Left Fork Iron Creek, 0.3 km (0.2 mi) of Right Fork Iron Creek, all 2.2 km (1.4 mi) of Jackson Creek, and all 2.2 km (1.4 mi) of Hawley Creek. These streams are currently occupied and collectively form a distinct local population (USFWS 2002); the entire area contains spawning and rearing habitat (Gamett 1999).

(ix) Timber Creek from its confluence with the Little Lost River (at rkm 95.4 (rmi 59.2)) upstream for 5.8 km (3.6 mi) to its source springs and including the following tributaries: 1.3 km (0.8 mi) of Camp Creek, 1.1 km (0.7 mi) of Redrock Creek, and 0.5 km (0.3 mi) of Slide Creek. These streams are currently occupied and collectively form a distinct local population (USFWS 2002); the entire area contains spawning and rearing habitat (Gamett 1999).

(x) Smithie Fork Creek from its confluence with the Little Lost River (at rkm 99.5 (rmi 61.8)) upstream for 5.0 km (3.1 mi) to its source springs. This stream supports a known bull trout local population. The entire area contains spawning and rearing habitat (Gamett 1999).

(23) Unit 19: Lower Columbia River Basin

The Lower Columbia Unit consists of portions of the Lewis, White Salmon, and Klickitat Rivers, and associated tributaries in southwestern and south-central Washington. The unit extends across Clark, Cowlitz, Kilickit, Skamania, and Yakima counties. Approximately 340 km (210 mi) of stream and 3 reservoirs covering 5,054 ha (12,488 ac) are proposed for critical habitat designation. Currently, there are three bull trout local populations in the Lewis River watershed and one in the Klickitat River. The Draft Recovery Plan

(USFWS 2002) indicates it is essential to the conservation of the species to maintain those four local populations and establish four additional populations within the Lewis River watershed, and one in the White Salmon.

(i) Lewis River CHSU

Proposed critical habitat in the Lewis River CHSU covers 179 km (110 mi) of stream and 5,054 ha (12,488 ac) of lake habitat. The CHSU is approximately 64 percent private land, 29 percent Federal land, 7 percent State land. Proposed critical habitat for this CHSU is described below.

(A) The lower Lewis River from its confluence with the Columbia River upstream 31.4 km (19.5 mi) to Merwin Dam. Bull trout are occasionally observed below Merwin Dam (PacifiCorp and Cowlitz County PUD 2001), and the reach provides important foraging and overwintering habitat, and connectivity to the Columbia River once fish passage at Merwin, Yale, and Swift Dams is restored. Restoring connectivity among local populations and to the Columbia River is necessary to maintain opportunities for genetic exchange, refund local populations, and provide access to additional foraging and overwintering habitat (Rieman and McIntyre 1993; USFWS 2002).

(B) Merwin Reservoir, which when full, covers 1,620 ha (4,000 ac) along approximately 23.8 km (14.8 mi) of the Lewis River from rkm 31.4 (rmi 19.5) to rkm 55.2 (rmi 34.3), and including Speelyai Creek from its confluence with the lake upstream 5.1 km (3.2 mi) to a chute barrier. Merwin Reservoir is the lowest reservoir on the Lewis River; bull trout currently found in this lake are believed to be coming through the Yale Dam spillway and turbines (USFWS 2002). Merwin Reservoir provides foraging and overwintering habitat to allow maturation of bull trout trapped below Yale Dam until they can be transported to Cougar Creek as spawners. The lake also provides habitat to support establishment of a local population in Speelyai Creek. This creek is identified in the Draft Recovery Plan (USFWS 2002) as spawning and rearing habitat that could support an additional local population. Springs and seeps in lower Speelyai Creek, below a diversion canal to Yale Reservoir, currently supply cold water to the Speelyai Fish Hatchery. Establishing fish passage at the hatchery would allow bull trout to access suitable spawning and rearing habitat above the hatchery.

(C) Yale Reservoir, which covers 1,539 ha (3,800 ac) along approximately 21.4 km (13.3 mi) of the Lewis River

from rkm 55.2 (rmi 34.3) to rkm 76.6 (rmi 47.6), and including the following stream reaches which flow into it: Cougar Creek from its confluence with the lake upstream 2.7 km (1.7 mi) to a lava tube barrier; the 4.3 km (2.3 mi) Swift Bypass reach; Ole Creek from its confluence with the Swift bypass reach upstream 1.3 km (0.8 mi) to a barrier falls and extending up Rain Creek 1.4 km (0.9 mi). Yale Reservoir is currently occupied and provides essential foraging and overwintering habitat for the local population that spawns and rears in Cougar Creek. The Swift Bypass Reach is essential as a site for establishing an additional local population, and to provide bull trout access to Rain and Ole Creeks for establishing an additional local population (Recovery Criteria 1 and 4 in the Lower Columbia Unit Chapter, USFWS 2002). Ole Creek, together with Rain Creek, is identified as suitable spawning and rearing habitat where an additional local population could be established (USFWS 2002).

(D) Swift Creek Reservoir, which when full covers 1,895 ha (4,680 ac) along approximately 18.5 km (11.5 mi) of the Lewis River from rkm 76.6 (rmi 47.6) to rkm 95.1 (rmi 59.1), and extending up 0.5 km (0.3 mi) of Swift Creek from the end of the Swift Arm segment of the reservoir to a barrier falls, and 2.0 km (1.3 mi) up an unnamed tributary (identified as S15 in PacifiCorp and Cowlitz County PUD 2000) that enters the reservoir from the south at rkm 84.5 (rmi 52.5). This area is currently occupied and provides important foraging and overwintering habitat for the two bull trout local populations that spawn in Rush and Pine Creek.

(E) Upper Lewis River from the eastern edge of Swift Creek Reservoir (rkm 95.1 (rmi 59.1)) upstream 43.6 km (27.1 mi) to Twin Falls and including the following tributaries: Pine Creek from its confluence with the Lewis River at rkm 95.8 (rmi 59.5) upstream 12.9 km (8.0 mi) to its headwaters, and extending 1.8 km (1.1 mi) up an unnamed tributary which branches off Pine Creek at rkm 4.7 (rmi 2.9) (identified as P7 in PacifiCorp and Cowlitz County PUD 2000), 6.7 km (4.2 mi) up another unnamed tributary (identified as P8 in PacifiCorp and Cowlitz County PUD 2000) which branches off Pine Creek at rkm 6.0 (rmi 3.7), and 0.4 km (0.3 mi) up another unnamed tributary (identified as P10 in PacifiCorp and Cowlitz County PUD 2000) which branches off Pine Creek at rkm 8.4 (rmi 5.2); Rush Creek from its confluence with the Lewis River at rkm 104.0 (rmi 64.6) upstream 2.7 km (1.7

mi) to a barrier falls; the upper Lewis River from the east end of Swift Creek Reservoir up to a barrier falls at rkm 116.2 (rmi 72.2) is currently occupied, providing foraging and overwintering habitat for bull trout that spawn in Pine and Rush Creeks, and providing connectivity to the reservoir. Bull trout are known to occupy the identified reaches of Pine and Rush Creeks and the "P7" unnamed tributary of Pine Creek. Current occupancy is unknown in the "P8" and "P10" Pine Creek tributaries; however they both are reported to be "very good salmonid habitat" (PacifiCorp and Cowlitz County PUD 2000) and are considered essential to provide for continued recovery of bull trout in Pine Creek, which was severely impacted by the eruption of Mount St. Helens in 1980. Current occupancy is also unknown for the 22.5 km (14.0 mi) of the Lewis River from the barrier falls at rkm 116.2 (rmi 72.2) to Twin Falls. This stretch is identified in the Draft Recovery Plan (USFWS 2002) as an area suitable for establishing an additional local population. The multiple falls reach, from rkm 116.2 (rmi 72.2) to rkm 120.4 (rmi 74.8), is included to maintain connectivity between a possible existing, or possible eventual (re)introduced, resident local population above the falls and existing bull trout populations below the falls.

(ii) White Salmon River CHSU

(A) Proposed critical habitat in this CHSU consists of 25.7 km (16.0 mi) of the White Salmon River and is approximately 98 percent private land, 2 percent Federal land, and less than 1 percent State land. The White Salmon River flows from the southwestern slope of Mount Adams to the Columbia River (Bonneville pool). Condit Dam currently forms Northwestern Lake. The scheduled removal of Condit Dam in 2006–2007 will result in removal of the reservoir and restoration of the White Salmon river to its former river channel. The White Salmon River is a historic bull trout locality, but no recent spawning has been observed in this drainage. However, suitable habitat exists and recovery criteria call for the reestablishment of a local population in this drainage (USFWS 2002). The 5.3 km (3.3 mi) reach of the White Salmon from the confluence with the Columbia River upstream to Condit Dam will provide an important corridor to the Columbia River when fish passage at Condit Dam is restored. The 2.4 km-long (1.5 mi-long) reservoir behind Condit Dam, Northwestern Lake, currently provides foraging and overwintering habitat for a remnant population of bull trout and/or to support establishment of

a spawning population in the upper watershed. Following the removal of Condit Dam, the critical habitat designation in this stream segment will be restricted to the restored river channel of the section of the White Salmon River that is currently contained within Northwestern Lake. This restored section of the White Salmon River will provide FMO habitat for a restored bull trout population (USFWS 2002). The 18.0 km (11.2 mi) stretch of the White Salmon River from the upper edge of Northwestern Lake to BZ Falls is also suitable foraging and overwintering habitat. With the restoration of the White Salmon river in the Northwestern Lake segment, designated critical habitat will include the White Salmon river for 26 km (16 mi) from the confluence with the Columbia River to BZ falls. Given the lack of specific information on conditions in upper tributary streams, no potential spawning and rearing habitat is being proposed as critical habitat.

(iii) Klickitat River CHSU

Proposed critical habitat in the Klickitat CHSU covers 135.5 km (84.2 mi) of stream. Approximately 42 percent of the CHSU is within the Yakama Nation Reservation, 35 percent is private land, 17 percent is State land, and 6 percent is Federal land. Tribal lands need to be included as critical habitat in this area because the West Fork Klickitat River, and its tributaries within the Yakama Reservation, supports the only known bull trout local population in the Klickitat drainage.

(A) Klickitat River from its confluence with the Columbia River upstream 103.3 km (64.2 mi) to Castile Falls. This section of the Klickitat River is currently occupied foraging and overwintering habitat, and is essential for maintaining connectivity with the Columbia River. The West Fork Klickitat River from its confluence with the Klickitat River at rkm 101.5 (rmi 63.0) upstream 7.2 km (4.5 mi) to the junction of Little Muddy Creek and Fish Lake Stream. The West Fork Klickitat River below the falls at rkm 0.5 (rmi 0.3) provides foraging and overwintering habitat for bull trout in the mainstem Klickitat River. Above the falls, the West Fork Klickitat River and the identified tributaries contain occupied spawning and rearing habitat (Washington Department of Fish and Wildlife (WDFW) 1998; Byrne *et al.*, unpublished 2000). Maintaining the resident bull trout population in the West Fork Klickitat River and its tributaries is essential because it is the only known local population in the Klickitat drainage.

(B) Little Muddy Creek for a distance of 3.4 km (2.1 mi) to the confluence with Crawford Creek and extending 1.3 km (0.8 mi) up Clearwater Creek and 3.4 km (2.1 mi) up Trappers Creek.; Fish Lake Stream for a distance of 9.7 km (6.0 mi) to the confluence with Two Lakes Stream and extending 6.9 km (4.3 mi) up an unnamed tributary that meets Fish Lake Stream at rkm 8.0 (rmi 5.0) and also extending 1.3 km (0.8 mi) up Two Lakes Stream.

(24) Unit 20: Middle Columbia River Basin

The Middle Columbia River unit encompasses the entire Yakima River basin located in south central Washington, draining approximately 15,900 square km (6,155 square mi). The basin occupies most of Yakima and Kittitas counties, about half of Benton County, and a small portion of Klickitat County. Thirteen local populations of bull trout occur in this unit: the mainstem Yakima River (Keechelus to Easton Reach); Ahtanum Creek; American River; Rattlesnake Creek; Crow Creek; South Fork Tieton River; Indian Creek; Deep Creek; North Fork Teanaway River; Box Canyon Creek; Upper Kachess River; Gold Creek; and the Cle Elum River, all of which are essential to recovery. The Draft Recovery Plan (USFWS 2002) recommends the establishment of three other local populations in the North Fork Tieton River, Middle Fork Teanaway River, and Taneum Creek. Approximately 846 km (529 mi) of stream habitat and 6,066 ha (14986 ac) of lake and reservoir surface area are proposed as critical habitat within this unit. Of the stream segments proposed as critical habitat, approximately 44 percent are bordered by Federal land, 40 percent by private land, 9 percent by State land, and 7 percent by the Yakama Nation.

(i) Yakima River from the confluence of Ahtanum Creek at rkm 172.1 (rmi 106.9) upstream 155.9 km (96.9 mi) to Easton Diversion Dam is currently occupied FMO habitat (Pearson *et al.* 1998; M. Johnston, Yakama Nation, pers. comm., 2002) that is essential to maintain connectivity between all local populations within the Middle Columbia River unit. The Yakima River from the Easton Diversion Dam at rkm 326.0 (rmi 202.4) upstream 18.8 km (11.7 mi) to Keechelus Dam at rkm 345.3 (rmi 214.4) is currently occupied FMO and spawning and rearing habitat (WDFW 1998, 2002) for the Yakima River local population, as well as a migratory corridor to other local populations within the unit if passage is provided at Keechelus Dam as specified

in the Draft Recovery Plan (USFWS 2002).

(ii) Ahtanum Creek from the confluence with the Yakima River upstream 37.2 km (23.1 mi) to the confluence of the North and South Forks Ahtanum Creek provides currently occupied (WDFW 1998) FMO habitat for the Ahtanum Creek local population. South Fork Ahtanum Creek from the confluence with Ahtanum Creek upstream 23.5 km (14.6 mi) to the headwaters is currently occupied (WDFW 2002), and provides spawning and rearing habitat for the Ahtanum Creek local population. North Fork Ahtanum Creek from the confluence with Ahtanum Creek upstream 33.3 km (20.7 mi) to the headwaters is currently occupied (Dunham and Chandler 2001; WDFW 2002) and provides essential spawning and rearing habitat for the Ahtanum Creek local population. Middle Fork Ahtanum Creek from the confluence with North Fork Ahtanum Creek upstream 15.1 km (9.4 mi) to the headwaters is currently occupied (Dunham and Chandler 2001; WDFW 2002) and provides essential spawning and rearing habitat for the Ahtanum Creek local population. Shellneck Creek from the confluence with North Fork Ahtanum Creek upstream 2.9 km (1.8 mi) to the headwaters is currently occupied (WDFW 2002) and provides spawning and rearing habitat for the Ahtanum Creek local population.

(iii) Naches River from the confluence with the Yakima River upstream 71.8 km (44.6 mi) to the confluence of the Little Naches and Bumping Rivers is currently occupied (WDFW 1998) and provides FMO habitat for the American River, Rattlesnake Creek, and Crow Creek local populations.

(iv) Tieton River from the confluence with the Naches River upstream 34.3 km (21.3 mi) to Tieton Dam is currently occupied (J. Thomas, USFWS, pers. comm., 2002) and provides FMO habitat for local bull trout populations in the Naches River Basin. Bull trout in this reach may be from any one of the three isolated local populations that inhabit Rimrock Reservoir. These fish are often entrained into the Tieton River as water within Rimrock Reservoir is withdrawn (James 2001). This reach will provide a migratory corridor to other local populations if passage is provided at Tieton Dam as specified in the Draft Recovery Plan (USFWS 2002).

(v) Rimrock Reservoir (987 ha (2,438 ac)) and North Fork Tieton River upstream 1.4 km (0.9 mi) to Clear Lake Dam is currently occupied (WDFW 1998), and provides FMO habitat for the South Fork Tieton River and Indian Creek local populations. This reach will

also provide a migratory corridor to other local populations within the Yakima Basin if passage is provided at Tieton Dam and Clear Lake Dam as specified in the Draft Recovery Plan (USFWS 2002).

(vi) South Fork Tieton River from the confluence with Rimrock Reservoir upstream 27.0 km (16.8 mi) to a natural barrier is currently occupied (WDFW 2002) and provides spawning and rearing habitat for the South Fork Tieton River local population. Short and Dirty Creek from the confluence with the South Fork Tieton River upstream approximately 0.2 km (0.1 mi) to a natural barrier is currently occupied (WDFW 1998) rearing habitat for the South Fork Tieton River local population. Spruce Creek from the confluence with the South Fork Tieton River upstream approximately 0.8 km (0.5 mi) to a natural barrier is currently occupied and provides spawning and rearing habitat for the South Fork Tieton River local population (WDFW 1998). Grey Creek from the confluence with the South Fork Tieton River upstream approximately 0.4 km (0.2 mi) to a natural barrier is currently occupied and provides spawning and rearing habitat for the South Fork Tieton River local population (WDFW 1998). Bear Creek from the confluence with the South Fork Tieton River upstream approximately 1.8 km (1.1 mi) to a natural barrier is currently occupied and contains spawning and rearing habitat for the South Fork Tieton River local population (WDFW 2002).

(vii) Indian Creek from the confluence with Rimrock Reservoir upstream 8.1 km (5.0 mi) to a natural barrier is currently occupied and provides spawning and rearing habitat for the Indian Creek local population (WDFW 2002). Three springs which enter Indian Creek at rkm 3.5 (rmi 2.2), rkm 4.3 (rmi 2.7), and rkm 5.2 (rmi 3.2), respectively, also provide spawning and rearing habitat.

(viii) Clear Lake Reservoir (91 ha (225 ac)) may be currently occupied in very small numbers (E. Anderson, WDFW, *in litt.*, 2002) and will provide FMO habitat for the recovered distribution of bull trout (USFWS 2002). The North Fork Tieton River from the confluence with Clear Lake Reservoir upstream 19.1 km (11.9 mi) to a natural barrier is currently occupied (Craig 1997), likely in low numbers, and provides spawning and rearing habitat essential to the recovered distribution of bull trout (USFWS 2002).

(ix) Rattlesnake Creek from the confluence with the Naches River upstream 40.2 km (25.0 mi) to the headwaters is currently occupied (WDFW 2002) and provides essential

FMO and spawning and rearing habitat for the Rattlesnake Creek local population of bull trout. Dog Creek from the confluence with Rattlesnake Creek upstream 1.1 km (0.7 mi) to the confluence with Lookout Creek; Hindoo Creek from the confluence with Dog Creek upstream 1.8 km (1.1 mi) to a natural barrier; and Little Wildcat Creek from the confluence with Rattlesnake Creek upstream 5.8 km (3.6 mi) to the headwaters provide currently occupied (WDFW 2002) spawning and rearing habitat for the Rattlesnake Creek local population.

(x) Little Naches River from the confluence with the Naches River upstream 5.0 km (3.1 mi) to the confluence with Crow Creek is occupied FMO habitat supporting local populations in the Naches River Basin, particularly the Crow Creek local population (WDFW 1998).

(xi) Crow Creek from the confluence with the Little Naches River upstream 15.1 km (9.4 mi) to the confluence with Falls Creek contains occupied spawning and rearing habitat for the Crow Creek local population (WDFW 2002).

(xii) Bumping River from the confluence with the Naches River upstream 24.8 km (15.4 mi) to Bumping Dam contains occupied FMO habitat (Kalin and Ackerman 2002) for the local populations within the Naches River Basin. This reach will also provide a migratory corridor to other local populations within the Yakima River Core Area if passage is provided at Bumping Dam as specified in the Draft Recovery Plan (USFWS 2002). Bumping Reservoir (532 ha (1,314 ac)) is occupied (WDFW 1998) and provides foraging and rearing habitat for the Deep Creek local population.

(xiii) Deep Creek from the confluence with Bumping Reservoir upstream 5.6 km (3.5 mi) to a natural barrier approximately 305 m (1,000 ft) upstream from USFS Road 2008 crossing provides spawning and rearing habitat for the Deep Creek local population (WDFW 2002).

(xiv) American River from the confluence with the Bumping River upstream 27.0 km (16.8 mi) to the confluence with Morris Creek provides spawning and rearing habitat for the American River local population (WDFW 2002). This reach also provides essential FMO habitat for the American River local population and other local populations within the Naches River Basin. Kettle Creek from the confluence with the American River upstream 3.2 km (2.0 mi) to a natural barrier, Union Creek from the confluence with the American River upstream 0.8 km (0.5 mi) to a natural barrier, and Timber

Creek from the confluence with the American River upstream 0.8 km (0.5 mi) to a natural barrier provide spawning and rearing habitat for the American River local population (WDFW 2002).

(xv) Taneum Creek from the confluence with the Yakima River upstream 20.4 km (12.7 mi) to the confluence with the North and South Forks of Taneum Creek is not currently known to be occupied, but will provide FMO habitat for the recovered distribution of bull trout (USFWS 2002). North Fork Taneum Creek from the confluence with Taneum Creek upstream 19.0 km (11.8 mi) to the headwaters, and South Fork Taneum Creek from the confluence with Taneum Creek upstream 13.8 km (8.6 mi) to the headwaters are not currently known to be occupied, but will provide FMO habitat for the recovered distribution of bull trout (USFWS 2002).

(xvi) Teanaway River from the confluence with the Yakima River upstream 19.5 km (12.1 mi) to the confluence of the Middle and West Forks Teanaway River provides FMO habitat for the Teanaway River local populations (Pearson *et al.* 1998). North Fork Teanaway River from the confluence with the Teanaway River upstream 30.7 km (19.1 mi) to the headwaters contains essential FMO and spawning and rearing habitat for the North Fork Teanaway River local population (Pearson *et al.* 1998; WDFW 2002). Jack Creek from the confluence with the North Fork Teanaway River upstream 10.9 km (6.8 mi) to the headwaters; Jungle Creek from the confluence with the North Fork Teanaway River upstream 6.4 km (4.0 mi) to the headwaters; and DeRoux Creek from the confluence with the North Fork Teanaway River upstream 4.7 km (2.9 mi) to the headwaters provide spawning and rearing habitat for the North Fork Teanaway River local population (Pearson *et al.* 1998; WDFW 1998, 2002).

(xvii) Middle Fork Teanaway River from the confluence with the Teanaway River upstream 25.5 km (15.9 mi) to the headwaters is of unknown occupancy but provides suitable FMO and spawning and rearing habitat (E. Anderson, *in litt.*, 2002) necessary for the recovered distribution of bull trout (USFWS 2002).

(xviii) Cle Elum River from the confluence with the Yakima River upstream 13.2 km (8.2 mi) to Cle Elum Dam was historically occupied by bull trout (WDFW 1998), but the extent of current occupancy is unknown. This reach may provide essential FMO habitat for the mainstem Yakima River

population, and will provide a migratory corridor to other local populations upstream if passage is provided at Cle Elum Dam as stipulated in the Draft Recovery Plan (USFWS 2002).

(xix) Cle Elum Reservoir (1,770 ha (4,375 ac)) provides FMO habitat for the Upper Cle Elum River local population (WDFW 1998), and will provide a migratory corridor between other local populations within the Yakima Basin if passage is provided at Cle Elum Dam, as stipulated in the Draft Recovery Plan (USFWS 2002). The Cle Elum River from the confluence with the Cle Elum Reservoir upstream 34.8 km (21.6 mi) to the headwaters provides spawning and rearing habitat for the Cle Elum River local population (P. James, Central Washington University, pers. comm., 2002; WDFW 2002) and may also provide FMO habitat as well. The Cooper River from the confluence with the Cle Elum River upstream 22.7 km (14.1 mi) to the headwaters is currently of unknown occupancy, but would provide both FMO and spawning and rearing habitat for the recovered distribution of the Cle Elum River local population (USFWS 2002). The Waputis River from the confluence with the Cle Elum River upstream 21.2 km (13.2 mi) to its headwaters provides spawning, rearing, and FMO habitat for the Upper Cle Elum River local population (WDFW 1998; Hisata 1999). Fortune Creek from the confluence with the Cle Elum River upstream 7.2 km (4.5 mi) to the headwaters provides spawning and rearing habitat (T. Mayo, USFS, pers. comm., 2002).

(xx) Kachess River from the confluence with the Yakima River upstream 1.4 km (0.9 mi) to Kachess Dam is of unknown occupancy, but likely provides FMO habitat for the mainstem Yakima River local population and will provide a migratory corridor to other local populations within the Yakima Basin if passage is provided at Kachess Dam (USFWS 2002).

(xxi) Kachess Reservoir (1,734 ha (4,260 ac)) provides FMO habitat for the Box Canyon and Upper Kachess River local populations (WDFW 2002), and will provide a migratory corridor to other local populations within the Yakima River Core Area if passage is provided at Kachess Dam (USFWS 2002). Box Canyon Creek from the confluence with Kachess Reservoir upstream 2.6 km (1.6 mi) to a natural barrier provides spawning and rearing habitat for the Box Canyon Creek local population (WDFW 2002). Kachess River upstream of Kachess Reservoir from the confluence with Kachess

Reservoir upstream 3.2 km (2.0 mi) to a natural barrier provides essential spawning and rearing habitat for the Upper Kachess River local population (Meyer 2002; WDFW 2002). Mineral Creek from the confluence with the Kachess River upstream 1.0 km (0.6 mi) to a natural barrier provides rearing habitat for the Upper Kachess River local population (Meyer 2002; WDFW 2002).

(xxii) Keechelus Reservoir (961 ha (2,374 ac)) provides FMO habitat for the Gold Creek local population, and will provide a migratory corridor to other local populations within the Yakima Basin, if passage is provided at Kachess Dam, as stipulated in the Draft Recovery Plan (USFWS 2002). Gold Creek from Keechelus Reservoir upstream 11.4 km (7.1 mi) to a natural barrier contains essential spawning and rearing habitat for the Gold Creek local population (WDFW 2002).

(25) Unit 21: Upper Columbia River Basin

The Upper Columbia River Basin includes three CHSUs in central and northern Washington on the east slopes of the Cascade Mountains: (1) Wenatchee River CHSU in Chelan County; (2) Entiat River CHSU in Chelan County; and (3) Methow River CHSU in Okanogan County. A total of 909.7 km (565.4 mi) of streams and 1,010 ha (2,497 ac) of lake surface area are proposed for critical habitat.

Proposed critical habitat includes 364 km (226.1 mi) of stream in 21 stream reaches and one lake (990 ha; 2,445 ac) in the Wenatchee River CHSU, 78.5 km (48.8 mi) of stream in three stream reaches in the Entiat River CHSU, and 486.3 km (302.2 mi) of stream in 26 stream reaches and three lakes that total 22.6 ha (55.9 ac) in the Methow River CHSU.

(i) Wenatchee River CHSU

This CHSU contains the largest known populations of bull trout in the Upper Columbia River Basin, and includes the mainstem Wenatchee River and tributaries from the Columbia River up to their headwaters. Landownership along the stream reaches proposed for critical habitat is 59 percent Federal land and 41 percent private land. The ownership of the shoreline of the lake proposed for critical habitat is 40 percent Federal land and 60 percent private land. Currently, there are six migratory local populations in the Wenatchee River core area: Peshastin Creek (including Ingalls Creek), Chiwaukum Creek, Chiwawa River (including Chikamin, Rock, Phelps, James, Alpine, and Buck Creeks), Nason

Creek (including Mill Creek), Little Wenatchee River (below the falls), and White River (including Canyon and Panther Creeks). There is also a resident bull trout population in Icicle Creek above the barrier falls.

(A) Wenatchee River from the confluence with the Columbia River upstream 87.2 km (54.2 mi) to Lake Wenatchee provides FMO habitat (Kreiter 2001, 2002) for at least four of the six local migratory bull trout populations upstream. Lake Wenatchee (approximately 990 ha (2,445 ac)) provides FMO habitat (USFWS 2002) for the Chiwawa River, Little Wenatchee River, White River, and likely the Nason Creek local populations.

(B) Peshastin Creek from the confluence with the Wenatchee River upstream 17.4 km (10.8 mi) to the confluence with Negro Creek provides FMO habitat for the Peshastin Creek local population (USFWS 1997a; 1998). Ingalls Creek from its mouth on Peshastin Creek upstream 16.3 km (10.1 mi) to a barrier falls provides essential spawning and rearing habitat for the Peshastin Creek local population (USFWS 1997a).

(C) Icicle Creek from its mouth on the Wenatchee River upstream 8.8 km (5.5 mi) to a potential barrier (complex boulder area) provides essential FMO habitat for migratory bull trout. Spawning and rearing habitat occurs from this point upstream to the falls at rkm 48.3. This area is occupied by a resident population that has been isolated since 1940 by a fish barrier at the Leavenworth National Fish Hatchery, and possibly longer if the boulder area at rkm 8.8 poses an absolute barrier. Jack Creek from its mouth on Icicle Creek at rkm 27.7 (rmi 17.2) upstream 11.4 km (7.1 mi) to a barrier falls provides essential spawning and rearing habitat for the Icicle Creek local population (USFWS 1997a). French Creek from its mouth on Icicle Creek at rkm 34.8 (rmi 21.6) upstream 8.8 km (5.5 mi) to a barrier falls also provides spawning and rearing habitat for bull trout in the Icicle Creek local population.

(D) Chiwaukum Creek from its mouth on the Wenatchee River at rkm 57.8 upstream 10.5 km (6.5 mi) to a barrier falls provides spawning and rearing habitat for bull trout in the Chiwaukum Creek population (USFWS, *in litt.*, 2002).

(E) Chiwawa River from its confluence with the Wenatchee River upstream 53.3 km (33.1 mi) to a barrier falls provides essential FMO habitat up to Grouse Creek at rkm 31.2, and spawning and rearing habitat from that point upstream to rkm 53.3 (Hillman

and Miller 2002). The Chiwawa River local population is the largest population in the Wenatchee Basin. Chikamin Creek from its mouth on the Chiwawa River at rkm 22.2 upstream 13.4 km (8.4 mi) to its headwaters (Hillman and Miller 2002), Rock Creek from its mouth on the Chiwawa River at rkm 34.3 upstream 9.3 km (5.8 mi) to a barrier falls (USFS 2002a), Phelps Creek from its mouth on the Chiwawa River at rkm 48.6 upstream 1.6 km (1.0 mi) to a barrier falls, James Creek from its mouth on the Chiwawa River at rkm 50.2 upstream 0.5 km (0.3 mi) to a gradient barrier (USFWS, *in litt.*, 2001), Alpine Creek from its mouth on the Chiwawa River at rkm 51.0 upstream to a gradient barrier at rkm 0.2 (USFWS, *in litt.*, 2001), and Buck Creek from its mouth on the Chiwawa River at rkm 53.1 upstream 0.6 km (0.4 mi) to a barrier falls (USFWS, *in litt.*, 2001) provide essential spawning and rearing habitat for the Chiwawa River local population.

(F) Nason Creek from its mouth on the Wenatchee River at rkm 86.2 (rmi 53.5) upstream 34.9 km (21.7 mi) to a barrier falls provides FMO habitat in the lower reaches to the confluence with Whitepine Creek at rkm 24.8, and spawning and rearing habitat in the upper reaches (USFWS 2002). Mill Creek from its mouth on Nason Creek at rkm 33.0 (rmi 20.5) upstream to barrier falls at rkm 1.0 provides the only other known spawning and rearing habitat for the Nason Creek local population (USFWS 2002).

(G) Little Wenatchee River from its mouth at the upper end of Lake Wenatchee upstream to a barrier (falls) at rkm 12.6 contains spawning and rearing habitat for the Little Wenatchee local population (J. DeLaVergne, USFWS, pers. comm., 2001). In addition to providing spawning and rearing habitat, it appears to provide a foraging area for bull trout using Lake Wenatchee (USFWS 2002).

(H) White River from its mouth at the upper end of Lake Wenatchee upstream to a barrier falls at rkm 23.0 provides one of only two main spawning areas for the White River local population (USFWS 2002). In addition to providing spawning and rearing habitat, it appears to provide a foraging area for bull trout using Lake Wenatchee (USFWS 2002). Canyon Creek from its mouth on the White River at rkm 15.2 upstream to its headwaters at rkm 6.3 is at least seasonally occupied (J. DeLaVergne, USFWS, pers. comm., 2002), and provides potential spawning and rearing habitat for the recovered distribution of bull trout (USFWS 2002). The Napeequa River from its mouth on the White River at rkm 15.2 (rmi 9.4) upstream 3.5 km

(2.2 mi) to a barrier falls is at least seasonally occupied (J. DeLaVergne, USFWS pers. comm., 2002), may provide spawning and rearing habitat (WDFW 1992), and may also provide valuable foraging habitat due to the presence of spawning sockeye salmon (*Oncorhynchus nerka*) and their progeny. Panther Creek from its mouth on the White River at rkm 21.1 (rmi 13.1) upstream 1.1 km (0.7 mi) to a barrier falls provides occupied spawning and rearing habitat (USFWS 2002) and is probably the main spawning area for the White River local population.

(ii) Entiat River CHSU

The Entiat River CHSU includes the Entiat River and its tributaries. The apex of the watershed is at the Cascade crest and water flows east towards the Columbia Plateau. The Entiat River drains into the Columbia River near the city of Entiat. Landownership along the stream reaches proposed for critical habitat within the Entiat River CHSU is approximately 47 percent Federal land and 53 percent private land. There are two local populations in the Entiat CHSU: Entiat River and Mad River (including Tillicum Creek).

(A) Entiat River from confluence with the Columbia River at rkm 778.3 (rmi 483.3) upstream to a barrier falls at rkm 47.0 (rmi 29.2) is occupied and provides FMO habitat (Kreiter 2001, 2002) in the lower reaches (up to about rkm 25.7 (rmi 16.0)), and spawning and rearing habitat from that point upstream to the falls (USFWS 1997b, 1999c, 2000b, 2002).

(B) Mad River from the confluence with the Entiat River upstream 31.5 km (19.6 mi) to a barrier cascades is occupied (WDFW 1992), provides essential FMO habitat in the lower reaches (Kreiter 2001, 2002), and spawning a rearing habitat from that point upstream to the barrier (USFS 2002a). The Mad River provides the majority of the known spawning and rearing habitat in the Entiat CHSU. Tillicum Creek from the confluence with the Mad River upstream 4.7 km (2.9 mi) to a barrier falls contains habitat of unknown occupancy, but that is suspected to support bull trout spawning and rearing (WDFW 1998), and that is necessary to provide for the recovered distribution of bull trout (USFWS 2002).

(iii) Methow River CHSU

The Methow River CHSU is located on the eastern slopes of the Cascade Mountains in northern Washington. The Methow River drains into the Columbia River near the town of Pateros. The

CHSU includes the mainstem Methow River and tributaries from the Columbia River up to their headwaters.

Landownership along the stream reaches proposed for critical habitat within this CHSU is 59 percent Federal land and 41 percent private land. The three lakes are entirely surrounded by Federal land. Currently, there are eight local populations of bull trout identified (USFWS 2002) in the Methow CHSU: Gold Creek (including Crater Creek), Twisp River (including Buttermilk, Bridge, Reynolds, and North creeks), Chewuch River (including Lake Creek), Wolf Creek, Early Winters Creek, Upper Methow River, Lost River, and Goat Creek. Adfluvial, fluvial, and resident forms of bull trout are all present.

(A) Methow River from the confluence with the Columbia River at rkm 843.0 (rmi 523.5) upstream to its confluence with the Lost River at rkm 117.5 is occupied and provides essential FMO habitat (Kreiter 2001, 2002) to facilitate bull trout migration between the Columbia River, Methow River and the eight local populations. The Methow River from the confluence with the Lost River upstream to the West Fork of the Methow River at rkm 133.2 (rmi 82.7) provides essential spawning and rearing habitat for the Upper Methow River local population. Robinson Creek from its confluence with the Methow River upstream to its headwaters, and Rattlesnake Creek from its confluence with the Methow River upstream to a barrier falls at rkm 1.9, are of unknown occupancy, but may be accessible in their lower reaches and may provide essential spawning and rearing habitat for the recovered distribution of the Upper Methow River local population (USFWS 2002). Trout Creek from its confluence with the Methow River upstream 11.6 km (7.2 mi) to its headwaters provides occupied spawning and rearing habitat for the Upper Methow River local population (WDFW 1998).

(B) Gold Creek from the confluence with the Methow River upstream 1.8 km (1.1 mi) to the confluence of the North Fork and South Fork of Gold Creek, and the North Fork of Gold Creek from the confluence of the North Fork and South Fork of Gold Creek upstream 8.4 km (5.2 mi) to the confluence with Crater Creek, are all of unknown occupancy by bull trout, but provide essential FMO habitat to connect bull trout that spawn and rear in Crater Creek with foraging habitat in the Methow River, as well as to provide habitat for the recovered distribution of bull trout (USFWS 2002). Crater Creek from the confluence with North Fork Gold Creek upstream 4.7 km (2.9 mi) to a barrier falls is currently

occupied and provides essential spawning and rearing habitat for the Gold Creek local population.

(C) Beaver Creek from confluence with the Methow River at rkm 56.6 (rmi 35.1) upstream to the confluence with Blue Buck Creek provides historical FMO habitat (WDFW 1998) to restore connectivity of isolated resident bull trout populations in Blue Buck Creek with the Methow River and its associated bull trout populations. Addressing human-made barriers and habitat restoration are necessary to allow migratory bull trout to utilize this area to provide for the recovered distribution of bull trout (USFWS 2002). Blue Buck Creek from its confluence with Beaver Creek upstream to a barrier falls at rkm 3.5 is currently occupied by a resident population of bull trout that is thought to have historically included a migratory component (WDFW 1998).

(D) Twisp River from the confluence with the Methow River at rkm 64.7 (rmi 40.2) upstream 47.5 km (29.5 mi) to the confluence of the North Fork and South Fork provides FMO habitat (Kreiter 2001, 2002) from the mouth up to the confluence with Little Bridge Creek at rkm 15.0 and spawning and rearing habitat (USFS 2002b) from that point upstream to the confluence of the North Fork and South Fork. Little Bridge Creek from the confluence with the Twisp River upstream 15.8 km (9.8 mi) to its headwaters provides habitat necessary for the recovered distribution of bull trout (USFWS 2002). Buttermilk Creek from the confluence with the Twisp River upstream 4.0 km (2.5 mi) to the East and West Forks of Buttermilk Creek is at least seasonally occupied (Kreiter 2001, 2002) and provides FMO habitat. The East Fork of Buttermilk Creek from the confluence with Buttermilk Creek upstream 4.8 km (3.0 mi) to a series of falls that form a barrier, and the West Fork of Buttermilk Creek from the confluence with Buttermilk Creek upstream 14.5 km (9.0 mi) to its headwaters, are currently occupied and provide spawning and rearing habitat for the Twisp River local population (J. DeLaVergne, pers. comm., 2001; USFS 2002b). Reynolds Creek from the confluence with the Twisp River at rkm 33.6 upstream 1.1 km (0.7 mi) to a barrier falls, and North Creek from the confluence with the Twisp River at rkm 42.0 upstream 1.3 km (0.8 mi) to a barrier falls are currently occupied and provide essential spawning and rearing habitat for the Twisp River local population (WDFW 1998; USFS 2002b).

(E) Chewuch River from the confluence with the Methow River at rkm 80.6 upstream 52.0 km (32.3 mi) to a barrier falls provides FMO habitat up

to the confluence with Lake Creek at rkm 38.1 and spawning and rearing habitat from that point up to the barrier falls (J. DeLaVergne, pers. comm., 2001). Lake Creek from its confluence with the Chewuch River upstream 12.6 km (7.8 mi) to the upper limits of Black Lake, and including Black Lake, is currently occupied FMO habitat. From Black Lake upstream to a barrier falls (15.8 km (9.8 mi)) above the confluence with the Chewuch River is where spawning and rearing habitat occurs (USFS 1994b, 1995a; 2002b).

(F) Wolf Creek from the confluence with the Methow River at rkm 85.0 (rmi 52.8) upstream 17.1 km (10.6 mi) to a barrier falls provides essential FMO habitat from its mouth up to the wilderness boundary at rkm 7.4 (rmi 4.6), and essential spawning and rearing habitat from that point up to the barrier falls (WDFW 1998; USFS 2002b).

(G) Goat Creek from its confluence with the Methow River at rkm 103.0 upstream 20.4 km (12.7 mi) to its headwaters is currently occupied by both resident and fluvial bull trout (WDFW 1998), provides FMO habitat up to Vanderpool Crossing at rkm 10.9 (rmi 6.8), and spawning and rearing habitat from there up to its headwaters (J. DeLaVergne, pers. comm., 2001; B. Kelly Ringel, USFS, pers. comm., 2002).

(H) Early Winters Creek from the confluence with the Methow River at rkm 108.3 upstream 26.5 km (16.5 mi) to its headwaters contains both FMO habitat and the primary spawning and rearing habitat for this local population. Fluvial bull trout are found downstream of a falls at rkm 12.9, and resident bull trout are found upstream of this point (WDFW 1998; USFS 2002b). Recently, some migratory sized bull trout have also been noted above the falls (J. DeLaVergne, pers. comm., 2001). Cedar Creek from its confluence with Early Winters Creek upstream 4.0 km (2.4 mi) to a barrier falls also provides spawning and rearing habitat for the Early Winters Creek local population (USFS 2002b). Huckleberry Creek from its confluence with Cedar Creek at rkm 3.5 upstream 7.1 km (4.4 mi) to its headwaters contains suitable spawning and rearing habitat necessary to provide for the recovered distribution of bull trout (USFWS 2002).

(I) The Lost River from its confluence with the Methow River upstream to the confluence with Monument Creek at rkm 12.4 provides FMO habitat. The Lost River from approximately rkm 20.4 (rmi 12.7) upstream to rkm 31.7 (rmi 19.7), about 1 km (0.6 mi) below Cougar Lake, contains the primary bull trout spawning and rearing habitat in this basin (WDFW 1998). From Cougar Lake

at rkm 32.7 (rmi 20.3) upstream to Middle Hidden Lake at rkm 36.2 (rmi 22.5) contains FMO and spawning and rearing habitat as well (USFS 2000b; B. Hallock, USFWS, pers. comm., 2002). Female size at maturity has shown the Lost River bull trout population to be composed of resident fish, though there may be some exchange with the Cougar Lake adfluvial stock (WDFW 1998). Both resident populations and adfluvial bull trout from Cougar Lake spawn and rear in the Lost River (WDFW 1998; USFS 2002b). Access to spawning and rearing habitat in this drainage is naturally disrupted by rock slides across the river at rkm 11.6 (rmi 7.2) and rkm 19.3 (rmi 12.0) that both appear to be comparatively recent barriers. The Lost River also flows subsurface for about 6 to 8 km (4 to 5 mi) between Drake Creek (at rkm 18.8 (rmi 11.7)) and Monument Creek (at rkm 12.4 (rmi 7.7)), and for about 1.0 km (0.6 mi) below Cougar Lake (at rkm 32.7 (rmi 20.3)) (Washington State Conservation Commission (WSCC) 2000). Monument Creek from the confluence with the Lost River upstream to its headwaters provides essential spawning and rearing habitat for the Lost River local population. Cougar Lake (approximately 7.6 ha (18.7 ac)), First Hidden Lake (approximately 7.3 ha (18 ac)), and Middle Hidden Lake (approximately 7.7 ha (19.1 ac)) provide FMO and rearing habitat for adfluvial bull trout (WDFW 1998).

(J) The West Fork of the Methow River from the confluence with the Methow River upstream 14.5 km (9.0 mi) to a barrier falls provides the primary spawning and rearing habitat for the Upper Methow River local population (USFS 2002b).

(26) Unit 22: Northeast Washington River Basins

The Northeast Washington unit includes bull trout above Chief Joseph Dam on the Columbia River. Major tributaries in the unit include the Sanpoil, Spokane, Kettle, Colville, and Pend Oreille Rivers. A total of 373.1 km (231.9 mi) of streams and 1,166 ha (2,880 ac) of lake surface area are proposed as critical habitat within this unit.

(i) Pend Oreille River CHSU

The Pend Oreille River CHSU is in the northeast corner of Washington State and includes the Pend Oreille River and all tributaries from Boundary Dam upstream to Albeni Falls Dam in Idaho. Only about 4.0 km (2.5 mi) of the Pend Oreille River and tributary waters within this CHSU are located in Idaho (Bonner County), with the remainder of

the CHSU within Pend Oreille County, Washington (Northwest Power Planning Council (NPPC) 2001). The basin encompasses 279,720 ha (691,200 ac) of which approximately 58 percent is public land managed by the USFS (Colville National Forest); 4 percent is State land, 1 percent is Tribal land, and 37 percent private lands. The USFWS also manages a small parcel of land as a unit of the Little Pend Oreille National Wildlife Refuge (Cusick Unit) near Cusick, Washington. Of the approximately 3,553 km (2,208 mi) of tributary streams that occur in this CHSU, 255.5 km (158.8 mi) are proposed for bull trout critical habitat, as well as approximately 117.6 km (73.1 mi) of the Pend Oreille River from Boundary Dam to Albeni Falls Dam, for a total 373.1 km (231.9 mi) of proposed critical habitat for this CHSU.

(A) The Pend Oreille River from Boundary Dam upstream 117.6 km (73.1 mi) to Albeni Falls Dam provides FMO habitat for the recovered distribution of bull trout (USFWS 2002). This reach includes Box Canyon Reservoir with a surface area of 2,983 ha (7,371 ac). Bull trout are at least occasionally present in this reach (Bennett and Liter 1991; M. Liter, IDFG, pers. comm., 2002; C. Donnelly, WDFW, pers. comm., 2002). Boundary Reservoir, a 27.4 km (17.0 mi) impoundment with a surface area of 664 ha (1,640 ac) at full pool elevation is also included in this reach. Bull trout are present in this reach (R2 Resource Consultants, Inc. 1998, citing C. Vail, WDFW, pers. comm., 1996; R2 Resource Consultants 1998, 2000). The mouths of tributaries provided localized zones of well defined cool water refugia in Boundary Reservoir in 1996. Small areas of cold water that provide refugia for bull trout were identified at the mouths of Sullivan, Flume, Slate, and Pee Wee Creeks (R2 Resource Consultants, Inc. 1998).

(B) Slate Creek from its confluence with the Pend Oreille River upstream 16.3 km (10.1 mi) to its headwaters provides spawning and rearing habitat necessary for the recovered distribution of bull trout (USFWS 2002). Reproduction is not currently known to occur within Slate Creek, but several bull trout have been captured at or near the mouth of Slate Creek in recent years (USFS 1999d; Terrapin Environmental 2000), including two migratory-sized individuals caught by angling in the early 1990s, indicating the presence of migratory bull trout using Slate Creek (T. Shuhda, USFS, pers. comm., 2002). Habitat capable of supporting strong and significant populations of native salmonids, particularly bull trout, exists

throughout the Slate Creek watershed (USFS 1999d).

(C) Sullivan Creek from its confluence with the Pend Oreille River upstream 35.3 km (22.0 mi) to its headwaters, provides FMO habitat in the lower reaches and spawning and rearing habitat in the upper reaches necessary for the recovered distribution of bull trout (USFWS 2002). Reproduction is not currently known to occur in Sullivan Creek; only one large adfluvial bull trout has been documented in these waters in recent years (USFS 1999e), and the 5.2 km (3.2 mi) reach from Mill Pond Dam down to the stream's confluence with Boundary Reservoir is believed to contain fewer than 50 adult bull trout (USFS 1999e). Outlet Creek from the confluence with Sullivan Creek upstream 19.3 km (12.0 mi) to the uppermost extent of the waters in Sullivan Lake provides FMO habitat necessary for the recovered distribution of bull trout (USFWS 2002). Establishing fish passage at both Mill Pond Dam and Sullivan Lake Dam is identified as an important bull trout recovery task (USFWS 2002). The entire area 502 ha (1,240 ac) of Sullivan Lake, which is a natural, deep, oligotrophic (deficient in plant nutrients) lake with a maximum depth of 95 m (312 ft) (T. Shuhda, pers. comm., 2002). It contains a strong forage base of kokanee salmon (*O. nerka*) and provides cold water refugia during summer months due to well developed thermal stratification. Harvey Creek from its confluence with Sullivan Lake upstream 18.3 km (11.4 mi) to its headwaters at Bunch Grass Lake provides spawning and rearing habitat necessary for the recovered distribution of bull trout (USFWS 2002). Harvey Creek has permanent water flow and provides good quality habitat for bull trout and other native salmonids (USFS 1999e). This stream has no migration barriers and is a stronghold for native westslope cutthroat trout populations in the Sullivan Creek watershed.

(D) Cedar Creek from its confluence with the Pend Oreille River upstream 16.1 km (10.0 mi) to its headwaters provides spawning and rearing habitat necessary for the recovered distribution of bull trout (USFWS 2002). Additionally, in September 1995, one bull trout measuring 460 mm (18 in) in length was observed above the Ione Municipal Dam during stream surveys conducted by the Kalispel Tribe (J. Maroney, Kalispel Tribe, pers. comm., 2002). There is no information on the origin or life history form of this fish, but the USFS suggests that this bull trout must have been a product of a

spawning population above Ione Municipal Dam (USFS 1999f).

(E) Ruby Creek from its confluence with the Pend Oreille River upstream 21.1 km (13.1 mi) to its headwaters provides FMO habitat in the lower reaches and spawning and rearing habitat necessary for the recovered distribution of bull trout in the upper reaches (USFWS 2002). Bull trout are not currently known to occupy Ruby Creek.

(F) LeClerc Creek from the confluence with the Pend Oreille River upstream 1.9 km (1.2 mi) to the confluence of the West Branch of LeClerc Creek and the East Branch of LeClerc Creek is currently occupied FMO habitat (S. Toth, Plum Creek Timber Company, *in litt.*, 1993), and also provides habitat necessary for the recovered distribution of bull trout (USFWS 2002). The West Branch of LeClerc Creek from the confluence with the Pend Oreille River upstream 24.8 km (15.4 mi) to its headwaters is occupied and provides spawning and rearing habitat for the LeClerc Creek bull trout population complex (T. Shuhda, pers. comm., 2002). East Branch of LeClerc Creek from the confluence with the Pend Oreille River upstream 20.8 km (12.9 mi) to the headwaters is occupied and provides spawning and rearing habitat for the LeClerc Creek population complex. Fourth of July Creek from its confluence with the East Branch of LeClerc Creek upstream 6.1 km (3.8 mi) to the headwaters provides spawning and rearing habitat, as well as habitat necessary to provide for the recovered distribution of bull trout (USFWS 2002). Bull trout have been noted at the mouth of this creek (J. Maroney, Kalispel Tribe, pers. comm., 2001), although spawning activity has not been confirmed. Water temperatures in Fourth of July Creek are cooler than water temperatures in the East Branch of LeClerc Creek, and habitat is suitable for bull trout spawning and rearing (T. Shuhda, pers. comm., 2002).

(G) Mill Creek from its confluence with the Pend Oreille River upstream 2.1 km (1.3 mi) to a barrier falls is occupied by bull trout (J. Maroney, Kalispel Tribe pers. comm., 2001), and also provides spawning and rearing habitat necessary to provide for the recovered distribution of bull trout (USFWS 2002).

(H) Tacoma Creek from its confluence with the Pend Oreille River, the North Fork of the South Fork of Tacoma Creek from the confluence with the South Fork Tacoma Creek, and the South Fork of Tacoma Creek from the confluence with Tacoma Creek upstream a total of 61.7 km (38.3 mi) to their respective

headwaters, provide FMO and spawning and rearing habitat necessary to provide for the recovered distribution of bull trout (USFWS 2002). These creeks are not currently known to be occupied by bull trout, but provide suitable habitat (T. Shuhda, pers. comm., 2002).

(I) Calispell Creek from its confluence with the Pend Oreille River upstream 4.2 km (2.6 mi) to the confluence with Smalle Creek is not currently known to be occupied by bull trout but provides FMO habitat necessary to provide for the recovered distribution of bull trout (USFWS 2002). Smalle Creek from its confluence with Calispell Creek upstream 10.6 km (6.6 mi) to a barrier falls, and East Fork of Smalle Creek from its confluence with Smalle Creek upstream 6.8 km (4.2 mi) to a barrier falls are not currently known to be occupied by bull trout, but provide suitable spawning and rearing habitat necessary to provide for the recovered distribution of bull trout (T. Shuhda, pers. comm., 2002; USFWS 2002).

(J) Indian Creek from its confluence with the Pend Oreille River upstream 8.5 km (5.3 mi) to the headwaters provides spawning and rearing habitat that may be currently utilized, but is also necessary to provide for the recovered distribution of bull trout (USFWS 2002). A gravid (pregnant) female bull trout has been documented in Indian Creek in recent years (J. Maroney, Kalispell Tribe, pers. comm., 2000). Indian Creek has 21.5 square meters per kilometer of suitable bull trout spawning habitat (Kalispel Natural Resource Department and WDFW 1995).

(27) Unit 23: Snake River Basin in Washington

The Snake River Washington Unit includes two critical habitat subunits (CHSU) located in southeast Washington: (1) the Tucannon River CHSU located in Columbia and Garfield counties, and (2) the Asotin Creek CHSU within Garfield and Asotin counties. A total of 326 km (203 mi) of stream reaches are proposed as critical habitat within this unit.

(i) Tucannon River CHSU

The Tucannon River CHSU encompasses the Tucannon River, Little Tucannon River, and Pataha Creek watersheds and their immediate major and minor tributaries. Landownership in the Tucannon River CHSU is comprised of 71 percent Federal lands; 23 percent State or local government lands, and 6 percent privately owned lands. The Tucannon River CHSU currently contains eight streams supporting local bull trout populations, and three streams identified in the draft

Bull Trout Recovery Plan (USFWS 2002) as essential streams to meet recovery criteria population goals. Proposed critical habitat in the Tucannon River CHSU includes a total of rkm 167.5 (rmi 104.1) in 12 streams within the subunit.

(A) Tucannon River from its confluence with the Snake River upstream 91.9 km (57.1 mi) to the waterfall below Buckley Ridge (approximately 4.8 km (3.0 mi) above the confluence of Bear Creek with the Tucannon River) provides FMO habitat in the lower reaches, and spawning and rearing habitat in the upper reaches for the Tucannon River local population (USFS, unpublished 1992a, unpublished 2001a; Martin *et al.* 1992; Underwood *et al.* 1995; WDFW 1997). The lower Tucannon River is also an important migratory corridor to spawning areas upstream in the watershed (G. Mendel, WDFW, pers. comm., 2002).

(B) Cummings Creek from the confluence with the Tucannon River upstream approximately 17.1 km (10.6 mi) to the point where water from Little Bear Wallow Spring enters Cummings Creek provides spawning and rearing habitat (WDFW 1997; USFS, unpublished 1992b) necessary for the recovered distribution for bull trout (USFWS 2002).

(C) Hixon Creek from the confluence with the Tucannon River upstream approximately 4.0 km (2.5 mi) to its headwaters was historically occupied (M. Schuck, WDFW, pers. comm., 2002), and provides spawning and rearing habitat necessary for the recovered distribution of bull trout (USFWS 2002).

(D) Little Tucannon River from its confluence with the Tucannon River upstream approximately 8.5 km (5.25 mi) to its headwaters has been documented as providing habitat for bull trout (USFS, unpublished 1992c), and provides spawning and rearing habitat necessary for the recovered distribution of bull trout (USFWS 2002).

(E) Panjab Creek from its confluence with the Tucannon River upstream 11.3 km (7 mi) to its headwaters provides spawning and rearing habitat for the Panjab Creek local population (USFS, unpublished 1992d).

(F) Meadow Creek from its confluence with Panjab Creek upstream 10.5 km (6.5 mi) to its headwaters at Godman Spring provides spawning and rearing habitat for the Meadow Creek local population (USFS, unpublished 1992e).

(G) Turkey Creek from its confluence with Panjab Creek upstream 5.2 km (3.25 mi) to its headwaters provides spawning and rearing habitat for the Turkey Creek local population (USFS, unpublished 1992f).

(H) Little Turkey Creek from the confluence with Meadow Creek upstream 5.5 km (3.4 mi) to its headwaters provides spawning and rearing habitat for the Little Turkey Creek local population (USFS, *in litt.*, 2002).

(I) Cold Creek from the confluence with the Tucannon River upstream 3.2 km (2 mi) to a 3 m (10 ft) water fall provides spawning and rearing habitat for the Cold Creek local population (USFS, unpublished 1992h, *in litt.*, 2002).

(J) Sheep Creek from the confluence with the Tucannon River upstream 0.8 km (0.5 mi) to a 6.6 m (22 ft) waterfall provides spawning and rearing habitat for the Sheep Creek local population (USFS, unpublished 1992i, *in litt.*, 2002).

(K) Bear Creek from the confluence with the Tucannon River upstream 4.8 km (3 mi) to a 3 m (10 ft) waterfall provides spawning and rearing habitat for the Bear Creek local population (USFS, *in litt.*, 2002).

(ii) Asotin Creek CHSU

Asotin Creek is a tributary to the Snake River located in Asotin and Garfield counties, Washington. Asotin Creek drains a portion of the northern slopes of the Blue Mountains of southeastern Washington State and enters the Snake River upstream of Clarkston, Washington at rkm 233.5 (rmi 145.0). The Asotin Creek watershed landownership is approximately 31 percent Federally owned land, 8 percent State and local government owned land, and 61 percent privately owned land. Bull trout in Asotin Creek are currently known to occur in headwater locations only, and may be primarily resident fish. Historically, bull trout distribution in the Asotin Creek CHSU was thought to be much more extensive and contain both resident and migratory bull trout (WDFW 1997; USFS 1998e). The streams or stream reaches in the Asotin Creek CHSU proposed for designation as critical habitat are those identified by the Recovery Unit Team as containing bull trout populations, or those that may not be known to be currently occupied, but contain necessary constituent elements to support spawning and rearing. The Asotin Creek CHSU currently contains two streams which support local bull trout populations, and eight streams that have potential to support spawning populations and are identified in the draft Snake River Washington Bull Trout Recovery Plan as essential streams to meet recovery criteria goals (USFWS 2002).

(A) Asotin Creek from the confluence with the Snake River upstream 24.0 km

(14.9 mi) to the confluence with the North Fork and the South Fork of Asotin Creek provides FMO habitat (WDFW 1997).

(B) George Creek from the confluence with Asotin Creek upstream 34.6 km (21.5 mi) to its headwaters at Seven Sisters Spring provides spawning and rearing habitat (USFS, unpublished 1993b) that may be currently occupied, and provides habitat necessary for the recovered distribution of bull trout (USFWS 2002).

(C) Wormell Creek from the confluence with George Creek upstream 6.4 km (4.0 mi) to its headwaters provides habitat of unknown occupancy by bull trout, but is necessary for the recovered distribution of bull trout (USFWS 2002).

(D) Hefflefinger Creek from the confluence with George Creek upstream 6.0 km (3.7 mi) to its headwaters provides spawning and rearing habitat that may currently support bull trout (G. Mendel, pers. comm., 2002b), and is necessary for the recovered distribution of bull trout (USFWS 2002).

(E) Coombs Creek from the confluence with George Creek upstream 10.1 km (6.3 mi) to its headwaters at Hostetler Spring provides spawning and rearing habitat of unknown occupancy, but is essential habitat for the recovered distribution of bull trout (USFWS 2002).

(F) Charley Creek from the confluence with Asotin Creek upstream 26.6 km (16.5 mi) was recently noted to be occupied by bull trout (USFS, unpublished 1993b; D. Groat, USFS, pers. comm., 2002e), provides FMO and spawning and rearing habitat, and provides habitat essential for the recovered distribution of bull trout (USFWS 2002).

(G) North Fork of Asotin Creek from the confluence of the North Fork of Asotin Creek and the South Fork of Asotin Creek where the streams combine and form the mainstem of Asotin Creek upstream 28.3 km (17.6 mi) to the headwaters at Dodge Spring, provides spawning and rearing habitat for the North Fork Asotin Creek local population (USFS, unpublished 1992g; WDFW 1997; G. Mendel, pers. comm., 2002c).

(H) South Fork of the North Fork of Asotin Creek from the confluence with the North Fork of Asotin Creek upstream 9.3 km (5.8 mi) to the headwaters at 3 C Spring is an area recently known to be occupied by bull trout (USFS, unpublished 1993d), and provides habitat necessary for the recovered distribution of bull trout (USFWS 2002).

(I) Middle branch of the North Fork of Asotin Creek from the confluence with

the North Fork of Asotin Creek upstream 8.0 km (5.0 mi) to the headwaters provides occupied spawning and rearing habitat for the North Fork Asotin Creek local population (USFS, unpublished 1993d).

(J) Cougar Creek from the confluence with the North Fork of Asotin Creek upstream 5.2 km (3.2 mi) to the headwaters below USFS Road 4027–015 provides spawning and rearing habitat for the Cougar Creek local population (USFS, *in litt.*, 2002).

(28) Unit 24: Columbia River

This unit is located in the States of Oregon and Washington and includes Clatsop, Columbia, Multnomah, Hood River, Wasco, Sherman, Gilliam, Morrow, and Umatilla counties in Oregon and Pacific, Wahkiakum, Cowlitz, Clark, Skamania, Klickitat, Benton, Walla Walla, Franklin, Yakima, Grant, Kittitas, Chelan, Douglas, and Okanogan counties in Washington. Landownership adjacent to reaches of the Columbia River proposed for bull trout critical habitat designation are approximately 39 percent Federal and 61 percent non-Federal.

The north shore of the Columbia River between Chief Joseph Dam and the Okanogan River is within the Colville Indian Reservation. Lands along the south shore are owned by private parties and the State of Washington. Lands in the mid-Columbia hydroelectric project reach from Wells Dam to Wanapum Dam are a mixture of private and State-owned lands. Much of the State-owned land is within wildlife areas managed by the Washington Department of Fish and Wildlife. The western shore between Wanapum and Priest Rapids dams is within the Yakima Firing Center Military Reservation. The eastern shore is under private and State (wildlife area) ownership.

A 72.5 km (45 mi) reach of the Columbia River from a point about 6.4 km (4 mi) downstream of Priest Rapids Dam to the head of McNary Reservoir, about 3.2 km (2 mi) upstream from the Richland city limits, is within the Hanford Reach National Monument (Monument). The 78,914-ha (195,000-ac) Monument includes diverse riparian, riverine, and upland habitats, as well as cultural and historic resources. The Monument is under jurisdiction of both the Department of Energy (DOE) and the Service. The DOE administers 12,141 ha (30,000 ac) of the Monument, while the Service's Division of Wildlife Refugees administers 66,773 ha (165,000 ac). The Department of the Interior established a Federal Planning Advisory Committee (Committee) for the Monument in January, 2001. The

Committee is presently working to provide advice to the DOE and the Service on a Monument management plan and Environmental Impact Statement. The management plan is expected to be completed by 2005.

Lands downstream to the mouth of the Columbia River are under a mix of private, State, and Federal ownership. National wildlife refuges are present at several locations along the river from the confluence with the Snake River to the Pacific Ocean. The Columbia Gorge National Scenic Area extends for 133.5 km (83.0 mi) from mouth of the Sandy River at about rkm 196.3 (rm 122.0) east to the confluence of the Deschutes River at about rkm 329.8 (rm 204.8). Management of this area is under jurisdiction of the USFS and Columbia Gorge Commission, a regional commission of local, State, and Federal interests. Management of the Columbia Gorge National Scenic Area is primarily directed toward upland areas adjacent to the Columbia River and not to aquatic habitat of the river itself.

(i) The Columbia River from the Pacific Ocean at rkm 0 (rmi 0) upstream to Chief Joseph Dam at rkm 877.0 (rmi 544.6) provides FMO habitat for tributary populations of bull trout. Critical habitat includes the free flowing reaches of the Columbia River and the reservoirs to the ordinary high water elevations and normal operating pool elevations, respectively.

(29) Unit 25: Snake River

The lower Snake River is located within the State of Washington from its mouth to the confluence with the Clearwater River at the cities of Clarkston, Washington and Lewiston, Idaho. The Snake River is within Franklin, Walla Walla, Columbia, Whitman, and Asotin counties in Washington State. The Snake River is the border between Washington and Idaho from Clarkston/Lewiston upstream to the Oregon border at rkm 223.7 (rm 139.0). The Snake River forms the boundary between Idaho and Oregon from that point upstream to the upper limit of this critical habitat unit. This portion of the proposed critical habitat reach of the Snake River is within Nez Perce, Idaho, Adams, and Washington counties in Idaho, and Wallowa, Baker, and Malheur counties in Oregon. Landownership adjacent to reaches of the Snake River proposed for bull trout critical habitat designation are approximately 50 percent Federal and 50 percent non-Federal.

The major features in Hells Canyon Hydroelectric Complex reach of the Snake River are Hells Canyon, Oxbow, and Brownlee dams and their reservoirs.

These projects are owned and operated by the Idaho Power Company to produce electrical power.

Landownership in the major tributary watersheds and along the Snake River is a mixture of Federal (USFS and BLM), State (Idaho and Oregon), and private owners.

Downstream from Hells Canyon Dam to the Oregon-Washington border, the Snake River is designated Wild and Scenic. It is also within the Hells Canyon National Recreation Area (NRA) and the Hells Canyon Wilderness which are administered by the USFS. The Hells Canyon NRA includes about 264,058 ha (652,500 ac) within its boundaries. The Hells Canyon NRA was established preserve the natural beauty, and historical and archaeological values of the Hells Canyon area, and to enhance the recreational and ecologic values and public enjoyment of the area. Management of this area is not directed at protecting bull trout in the Snake River.

Almost all of the lower Snake River corridor is privately owned. The only public lands are Federal lands associated with the lower Snake River dams and reservoirs and isolated parcels owned by the State of Washington.

(i) The mainstem Snake River from the confluence with the Columbia River upstream to the head of Brownlee Reservoir at rkm 552 (rmi 343) provides FMO habitat for tributary populations of bull trout. Proposed critical habitat includes the free flowing reaches of the Snake River and the reservoirs to the ordinary high water elevations and normal operating pool elevations, respectively.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to result in the destruction or adverse modification of critical habitat. The term "destruction or adverse modification" is defined at 50 CFR 402.02 as meaning: " * * * a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical." Individuals, organizations, States, local and Tribal governments, and other non-Federal entities are affected by the designation of critical habitat only if their actions occur on

Federal lands; require a Federal permit, license, or other authorization; or involve Federal funding.

Section 7(a) of the Act requires Federal agencies, including the Service, to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened, and with respect to its critical habitat, if any is proposed or designated. Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a proposed species or result in destruction or adverse modification of proposed critical habitat. Conference reports provide conservation recommendations to assist the agency in eliminating conflicts that may be caused by the proposed action. The conservation recommendations in a conference report are advisory. Regulations implementing these interagency cooperation provisions of the Act are codified at 50 CFR part 402.

We may issue a formal conference opinion, if requested by a Federal agency. Formal conference reports include an opinion that is prepared according to 50 CFR 402.14, as if the species was listed or critical habitat designated. We may adopt the formal conference report as the biological opinion when the species is listed or critical habitat designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)).

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of such a species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into consultation with us. Through this consultation, we would ensure that the permitted actions do not destroy or adversely modify critical habitat.

When we issue a biological opinion concluding that a project is likely to result in the destruction or adverse modification of critical habitat, we also provide "reasonable and prudent alternatives" to the project, if any are identifiable. Reasonable and prudent alternatives are defined at 50 CFR 402.02 as alternative actions identified during consultation that can be implemented in a manner consistent with the intended purpose of the action, that are consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that the

Director believes would avoid resulting in the destruction or adverse modification of critical habitat. Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project.

Regulations at 50 CFR 402.16 require Federal agencies to reinstate consultation on previously reviewed actions under certain circumstances, including instances where critical habitat is subsequently designated, and the Federal agency has retained discretionary involvement, or control over the action or such discretionary involvement or control is authorized by law. Consequently, some Federal agencies may request reinitiation of consultation or conferencing with us on actions for which formal consultation has been completed, if those actions may affect designated critical habitat or adversely modify or destroy proposed critical habitat.

Activities on Federal lands that may affect the bull trout or its critical habitat will require consultation under section 7 of the Act. Activities on private, State, county, or lands under local jurisdictions requiring a permit from a Federal agency, such as a permit from the Corps under section 404 of the Clean Water Act, or some other Federal action, including funding (e.g., Federal Highway Administration (FHA), Federal Aviation Administration (FAA), or Federal Emergency Management Agency (FEMA)), will continue to be subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on non-Federal lands that are not Federally funded or permitted, do not require section 7 consultation.

To properly portray the effects of critical habitat designation, we must first compare the requirements pursuant to section 7 of the Act for actions that may affect critical habitat with the requirements for actions that may affect a listed species. Section 7 of the Act prohibits actions funded, authorized, or carried out by Federal agencies from jeopardizing the continued existence of a listed species or destroying or adversely modifying the listed species' critical habitat. Actions likely to "jeopardize the continued existence" of a species are those that would appreciably reduce the likelihood of the species' survival and recovery. Actions likely to "destroy or adversely modify" critical habitat are those that would appreciably reduce the value of critical habitat for the survival and recovery of the listed species.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any

proposed or final regulation that designates critical habitat, those activities involving a Federal action that may adversely modify such habitat, or that may be affected by such designation. Activities that may destroy or adversely modify critical habitat include those that appreciably reduce the value of critical habitat for the conservation of the bull trout. Within critical habitat, this pertains only to those areas containing the primary constituent elements. We note that such activities may also jeopardize the continued existence of the species.

A number of Federal activities have the potential to destroy or adversely modify critical habitat for the bull trout. These activities may include land and water management actions of Federal agencies (e.g., Corps, BOR, USFS, BLM, Natural Resources Conservation Service, and Bureau of Indian Affairs) and related or similar actions of other Federally regulated projects (e.g., road and bridge construction activities by the FHA; dredge and fill projects, sand and gravel mining, and bank stabilization activities conducted or authorized by the Corps; and, National Pollutant Discharge Elimination System permits authorized by the Environmental Protection Agency (EPA)).

Specifically, activities that may destroy or adversely modify critical habitat are those that alter the primary constituent elements to an extent that the value of critical habitat for both the survival and recovery of the bull trout is appreciably reduced. Activities that, when carried out, funded, or authorized by a Federal agency, may destroy or adversely modify critical habitat for bull trout include, but are not limited to:

(1) Significant and detrimental altering of the minimum flow or the natural flow regime of any of the proposed stream segments. Possible actions would include groundwater pumping, impoundment, water diversion, and hydropower generation. We note that such flow alterations resulting from actions affecting tributaries of the proposed stream reaches may also destroy or adversely modify critical habitat;

(2) Alterations to the proposed stream segments that could indirectly cause significant and detrimental effects to bull trout habitat. Possible actions include vegetation manipulation, timber harvest, road construction and maintenance, prescribed fire, livestock grazing, off-road vehicle use, powerline or pipeline construction and repair, mining, and urban and suburban development. Riparian vegetation profoundly influences instream habitat conditions by providing shade, organic

matter, root strength, bank stability, and large woody debris inputs to streams. These characteristics influence water temperature, structure and physical attributes (useable habitat space, depth, width, channel roughness, cover complexity), and food supply (Gregory *et al.* 1991; Sullivan *et al.* in Naiman *et al.* 2000). The importance of riparian vegetation and channel bank condition for providing rearing habitat for salmonids in general is well documented (e.g., Bossu 1954 and Hunt 1969, cited in Beschta and Platts 1987; MBTSG 1998);

(3) Significant and detrimental altering of the channel morphology of any of the proposed stream segments. Possible actions would include channelization, impoundment, road and bridge construction, deprivation of substrate source, destruction and alteration of aquatic or riparian vegetation, reduction of available floodplain, removal of gravel or floodplain terrace materials, excessive sedimentation from mining, livestock grazing, road construction, timber harvest, off-road vehicle use, and other watershed and floodplain disturbances. We note that such actions in the upper watershed (beyond the riparian area) may also destroy or adversely modify critical habitat. For example, timber harvest activities and associated road construction in upland areas can lead to changes in channel morphology by altering sediment production, debris loading, and peak flows;

(4) Significant and detrimental alterations to the water chemistry in any of the proposed stream segments. Possible actions would include release of chemical or biological pollutants into the surface water or connected groundwater at a point source or by dispersed release (non-point);

(5) Activities that are likely to result in the introduction, spread, or augmentation of nonnative aquatic species in any of the proposed stream segments. Possible actions would include fish stocking for sport, aesthetics, biological control, or other purposes; use of live bait fish; aquaculture; construction and operation of canals; and interbasin water transfers; and

(6) Activities that are likely to create significant instream barriers to bull trout movement. Possible actions would include water diversions, impoundments, and hydropower generation where effective fish passage facilities are not provided.

If you have questions regarding whether specific activities will likely constitute destruction or adverse modification of critical habitat, contact

the Field Supervisor of the nearest Fish and Wildlife Ecological Services Office. Requests for copies of the regulations on listed wildlife, and inquiries about prohibitions and permits may be addressed to the Division of Endangered Species, U.S. Fish and Wildlife Service, 911 NE 11th Avenue, Portland, OR 97232-4181 (telephone 503/231-6158; facsimile 503/231-6243).

Relationship to Habitat Conservation Plans and Other Planning Efforts

Section 3(5)(A) of the Act defines critical habitat, in part, as those areas requiring special management considerations or protection. Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed species incidental to otherwise lawful activities. This permit allows a non-Federal landowner to proceed with an activity that is legal in all other respects, but that results in the incidental taking of a listed species. An incidental take permit application must be supported by an HCP that identifies conservation measures that the permittee agrees to implement for the species to minimize and mitigate the impacts of the permitted incidental take. The purpose of the HCP is to describe and ensure that the effects of the permitted action on covered species are adequately minimized and mitigated, and that the action does not appreciably reduce the survival and recovery of the species.

No approved HCPs include bull trout as a covered species within the range of the Klamath River population segment. Within the range of the Columbia River population segment, there are three: the Plum Creek Native Fish HCP, the Plum Creek I-90 HCP, and the WDNH HCP. Based on our evaluation of these HCPs we have concluded, pursuant to section 3(5)(A) of the Act, that areas within these HCPs do not require additional special management considerations or protection, and consequently we have not included areas within them as proposed critical habitat. (See the Managed Lands section, above, for a discussion of the factors considered).

In the event that future HCPs covering the bull trout are developed within the boundaries of designated critical habitat, we will work with applicants to ensure that the HCPs provide for protection and management of habitat areas essential for the conservation of the bull trout by either directing development and habitat modification to nonessential areas, or appropriately modifying activities within essential habitat areas so that such activities will not adversely modify the primary constituent elements. The HCP

development process provides an opportunity for more intensive data collection and analysis regarding the use of particular habitat areas by bull trout. The process also enables us to conduct detailed evaluations of the importance of such lands to the long-term survival of the species in the context of constructing a biologically configured system of interlinked habitat areas.

We will provide technical assistance and work closely with applicants throughout the development of future HCPs to identify lands essential for the long-term conservation of bull trout and appropriate management for those lands. The take minimization and compensation measures provided under these HCPs are expected to protect the essential habitat lands proposed as critical habitat in this rule. Furthermore, we will complete intra-Service consultation on our issuances of section 10(a)(1)(B) permits for these HCPs to ensure permit issuance will not destroy or adversely modify critical habitat. If an HCP that addresses the bull trout as a covered species is ultimately approved, we may reassess the critical habitat boundaries in light of the HCP.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific and commercial information available, and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as critical habitat. We cannot exclude such areas from critical habitat when such exclusion will result in the extinction of the species.

We will conduct an analysis of the economic impacts of designating these areas as critical habitat prior to making a final determination. When completed, we will announce the availability of the draft economic analysis with a notice in the **Federal Register**, and we will open a public comment period on the draft economic analysis at that time.

Public Comments Solicited

We intend that any final action resulting from this proposal to be as accurate and effective as possible. Therefore, we solicit comments or suggestions from the public, other concerned governmental agencies, the scientific community, industry, or any other interested party concerning this proposed rule. We particularly seek comments concerning:

(1) The reasons why any habitat should or should not be determined to be critical habitat as provided by section 4 of the Act, including any areas should be excluded under section 4(b)(2) of the Act;

(2) Specific information on the amount and distribution of bull trout habitat; what habitat is essential to the conservation of this species and why; and, in light of our use of the Draft Recovery Plan as the basis for identifying many of the areas we are proposing as critical habitat, whether the areas identified in the Draft Recovery Plan as necessary for the survival and recovery of bull trout are also essential to the conservation of the species, and therefore are appropriately included in our proposed designation of critical habitat.

(3) Land use practices and current or planned activities in the subject areas and their possible impacts on proposed critical habitat, including, but not limited to, whether areas do or do not meet the definition of critical habitat in section 3(5)(A)(i) of the Act with respect to requiring special management considerations or protection;

(4) Any foreseeable economic or other impacts resulting from the proposed designation of critical habitat, in particular, any impacts on small entities, families, and private landowners;

(5) Economic and other values associated with designating critical habitat for bull trout; and

(6) Whether our approach to critical habitat designation, including, but not limited to, our methods and criteria used to identify critical habitat, could be improved or modified in any way to ensure the use of the best available scientific information or to provide for greater public participation and understanding, or to assist us in accommodating public concern and comments.

To further a complete understanding of this proposed rule, the draft critical habitat proposal, maps, fact sheets, photographs, and other materials relating to this proposal can be found on the USFWS Pacific Region's bull trout website at <http://species.fws.gov/bulltrout>.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods: (1) You may submit written comments and information to John Young at the address provided in the **ADDRESSES** section above; (2) You may comment via the electronic mail (e-mail) to R1BullTroutCH@r1.fws.gov; and (3) You may hand-deliver comments to our Regional Office (see **ADDRESSES**

section above). Please submit e-mail comments as an ASCII file avoiding the use of special characters and any form of encryption. Please also include "Attn: RIN 1018-AI52" and your name and return address in your e-mail message. If you do not receive a confirmation from the system that we have received your e-mail message, contact us directly by calling our Regional Office at telephone number 503/872-2766.

Our practice is to make comments, including names and home addresses of respondents, available for public review during regular business hours. Individual respondents may request that we withhold their home address, which we will honor to the extent allowable by law. In some circumstances, we would withhold from the rulemaking record a respondent's identity, as allowable by law. If you wish us to withhold your name or address, you must state this request prominently at the beginning of your comment. However, we will not consider anonymous comments. To the extent consistent with applicable law, we will make all submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, available for public inspection in their entirety. Comments and materials received will be available for public inspection, by appointment, during normal business hours at the above address.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of such review is to ensure listing decisions are based on scientifically sound data, assumptions, and analyses. We will send these peer reviewers copies of this proposed rule immediately following publication in the **Federal Register**. We will invite these peer reviewers to comment, during the public comment period, on the specific assumptions and conclusions regarding the proposed designation of critical habitat.

We will consider all comments and information received during the public comment period on this proposed rule during preparation of a final rulemaking. Accordingly, the final decision may differ from this proposal.

Public Hearings

The Act provides for one or more public hearings on this proposal, if requested. Requests for public hearings must be made at least 15 days prior to the close of the public comment period.

Given the large geographic extent covered by this proposal, we already have scheduled nine public hearings.

Public hearings will be held at:

1. Wenatchee, WA, on January 7, 2003, at the West Coast Wentachee Center Hotel, 201 North Wenatchee Avenue;
2. Polson, MT, on January 7, 2003, at the KwaTaqNuq Resort, 303 U.S. Highway 93;
3. Salmon, ID, on January 7, 2003, at the Salmon Valley Center Meeting Room, 200 Main Street;
4. Spokane, WA, on January 9, 2003, at the West Coast Grand Hotel, 303 West North River Drive;
5. Lewiston, ID, on January 9, 2003, at the Red Lion Hotel, 621 21st Street;
6. Boise, ID, on January 14, 2003, at the AmeriTel Inn/Boise Spectrum, 7499 West Overland Road;
7. Eugene, OR, on January 14, 2003, at the Hilton Eugene and Conference Center, 66 East Sixth Avenue;
8. Pendleton, OR, on January 16, 2003, at the Red Lion Hotel, 304 S.E. Nye Avenue; and
9. Klamath Falls, OR, on January 22, 2003, at the Shilo Inn, 2500 Almond Street.

All of these public hearings will be held from 6 p.m. to 8 p.m., and the Service will be available from 1 to 3 p.m. prior to each hearing to provide information and to answer questions.

Persons needing reasonable accommodations in order to attend and participate in a public hearing should contact John Young at the address or phone number provided in the **ADDRESSES** section above, as soon as possible. In order to allow sufficient time to process requests, please call no later than 1 week before the hearing.

Clarity of the Rule

Executive Order 12866 requires each agency to write regulations that are easy to understand. We invite your comments on how to make this rule easier to understand including answers to questions such as the following: (1) Are the requirements in the rule clearly stated? (2) Does the rule contain technical language or jargon that interferes with the clarity? (3) Does the format of the rule (grouping and order of sections, use of headings, paragraphing, etc.) aid or reduce its clarity? (4) Is the description of the rule in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the rule? What else could we do to make the rule easier to understand?

Send a copy of any comments that concern how we could make this rule easier to understand to: Office of

Regulatory Affairs, Department of the Interior, Room 7229, 1849 C Street, NW., Washington, DC 20240. You may e-mail your comments to this address: Exsec@ios.doi.gov

Required Determinations

Section 4(b)(2) of the Act requires us to designate critical habitat “* * * on the basis of the best scientific data available and after taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat.” Following the publication of this proposed critical habitat designation, we will prepare a draft economic analysis to estimate the potential economic effect of the proposed designation. This draft analysis will be made available for public review and comments on it will be accepted. The preparation of this draft economic analysis and the comments we receive about it will assist us in further reviewing the required determinations listed below. We specifically request that the public review and provide comments on each of these required determinations. (See Public Comments Solicited section.)

Regulatory Planning and Review

In accordance with Executive Order 12866, this document is a significant rule and was reviewed by the Office of Management and Budget (OMB). As explained above, we are preparing a draft economic analysis of this proposed action. We will use this analysis to meet the requirement of section 4(b)(2) of the Act to determine the economic consequences of designating the specific areas as critical habitat. We also will use it to help determine whether to exclude any area from critical habitat, as provided for under section 4(b)(2), if we determine that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless we determine, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species. This analysis will be available for public comment before finalizing this designation. The availability of the draft economic analysis will be announced in the **Federal Register** and in local newspapers.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

This discussion is based upon the information regarding potential economic impact that is available to us at this time. Due to legally binding dates

for publication of this proposed rule, it has not been possible to conduct an economic assessment of the proposed designation of critical habitat to use as a basis for making this required evaluation under the Regulatory Flexibility Act. This assessment of economic effect is subject to modification prior to final rulemaking based upon development and review of the economic analysis being prepared pursuant to section 4(b)(2) of the Endangered Species Act and Executive Order 12866. The assessment presented here is for the purposes of compliance with the Regulatory Flexibility Act and does not reflect our position on the type of economic analysis required by *New Mexico Cattle Growers Assn. v. U.S. Fish & Wildlife Service*, 248 F.3d 1277 (10th Cir. 2001).

Under the Regulatory Flexibility Act (5 U.S.C. 601 et seq., as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish a notice of rulemaking for any proposed or final rule, it must prepare, and make available for public comment, a regulatory flexibility analysis that describes the effects of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the Regulatory Flexibility Act (RFA) to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic effect on a substantial number of small entities. SBREFA also amended the RFA to require a certification statement. Based on current information, the Service is certifying that this proposed rule will not have a significant effect on a substantial number of small entities. The following discussion explains our rationale.

We must determine whether the proposed rulemaking will affect a substantial number of small entities. According to the Small Business Administration, small entities include small organizations, such as independent non-profit organizations, and small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents, as well as small businesses (13 CFR 121.201). Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail

and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000.

In determining whether this rule could "significantly affect a substantial number of small entities", we consider whether critical habitat could potentially affect a "substantial number" of small entities in counties supporting critical habitat areas. While SBREFA does not explicitly define "substantial number," the Small Business Administration, as well as other Federal agencies, have interpreted this to represent an impact on 20 percent or greater of the number of small entities in any industry. In estimating the numbers of small entities potentially affected, we also considered whether their activities have any Federal involvement. Designation of critical habitat is accompanied by legal requirements under the Act only for activities authorized, funded, or carried out by Federal agencies. We note that approximately forty-five percent of the proposed critical habitat for the Klamath River DPS, and approximately forty-two percent of the proposed critical habitat for the Columbia River DPS, is on non-Federal lands. Some activities on these non-Federal lands will not have any Federal involvement and so will not be affected by critical habitat designation. However, there may be indirect effects from the designation. If such effects are identified in the economic analysis or public comments on the proposed determination, we will revisit this conclusion.

In areas occupied by bull trout, Federal agencies funding, permitting, or implementing activities are already required, through consultation with us under section 7 of the Act, to avoid jeopardizing the continued existence of bull trout. If this critical habitat designation is finalized, section 7 further requires Federal agencies to ensure, also through consultation with us, that their activities are not likely to result in the destruction or adverse modification of designated critical habitat. However, in areas where bull trout are present, we do not believe this will result in any additional regulatory burden on Federal agencies or their applicants beyond the duty to avoid jeopardizing the species, because, although adverse modification and jeopardy are two different standards, the substantive outcome of a consultation under each is commonly the same.

Where bull trout are not present, designation of critical habitat could trigger additional review of Federal activities under section 7 of the Act. However, outside the existing developed areas, land use on the majority of the proposed critical habitat is agricultural, such as livestock grazing and farming. Should a Federally funded, permitted, or implemented project be proposed that may affect designated critical habitat that is not occupied by bull trout, we will work with the Federal action agency and any applicant, through section 7 consultation, to identify ways to implement the proposed project while minimizing or avoiding any adverse effect to the species or critical habitat. In our experience, the vast majority of such projects can be successfully implemented, with at most, minor changes that avoid significant economic impacts to project proponents.

Even if the duty to avoid adverse modification does not trigger additional regulatory impacts in areas where these species are present, designation of critical habitat could result in an additional economic burden on small entities due to the requirement to reinstate consultation for ongoing Federal activities. The Columbia River and Klamath River populations of bull trout were Federally listed as threatened in June 1998. In fiscal years 1998 through 2002, we have conducted several hundred informal and approximately 108 formal section 7 consultations with other Federal agencies to ensure that their actions will not jeopardize the continued existence of the bull trout. As a result, based on the information currently available, we do not believe that the requirement to reinstate consultation for ongoing projects with a Federal nexus, as a result of the designation of critical habitat, will not affect a substantial number of small entities. As with other aspects of this assessment, however, we will have an opportunity to confirm or, if necessary, revise this conclusion prior to the final designation of critical habitat based on the results of the economic analysis, public comments, and other information developed in response to this proposed rule.

Within the proposed critical habitat units, the types of Federal actions or authorized activities that we have identified as potential concerns are:

- (1) Regulation of activities affecting waters of the United States by the Corps under section 404 of the Clean Water Act;
- (2) Regulation of water flows, damming, diversion, and channelization

implemented or licensed by Federal agencies;

(3) Regulation of timber harvest, grazing, mining, and recreation by the USFS and BLM;

(4) Road construction and maintenance, right-of-way designation, and regulation of agricultural activities;

(5) Hazard mitigation and post-disaster repairs funded by the FEMA; and

(6) Activities funded by the EPA, U.S. Department of Energy, or any other Federal agency.

In general, two different mechanisms in section 7 consultations could lead to additional regulatory requirements. First, if we conclude, in a biological opinion issued as part of formal consultation under section 7, that a proposed action is likely to jeopardize the continued existence of a species or adversely modify its critical habitat, we can offer "reasonable and prudent alternatives." Reasonable and prudent alternatives are alternative actions that can be implemented in a manner consistent with the scope of the Federal agency's legal authority and jurisdiction, that are economically and technologically feasible, and that would avoid jeopardizing the continued existence of listed species or resulting in adverse modification of critical habitat. A Federal agency and an applicant may elect to implement a reasonable and prudent alternative associated with a biological opinion that has found jeopardy or adverse modification of critical habitat. An agency or applicant could alternatively choose to seek an exemption from the requirements of the Act or proceed without implementing the reasonable and prudent alternative. However, unless an exemption were obtained, the Federal agency or applicant would be at risk of violating section 7(a)(2) of the Act if it chose to proceed without implementing the reasonable and prudent alternatives.

Second, if we find that a proposed action is not likely to jeopardize the continued existence of a listed animal species, we may identify reasonable and prudent measures designed to minimize the amount or extent of take and require the Federal agency or applicant to implement such measures through non-discretionary terms and conditions. We may also identify discretionary conservation recommendations designed to minimize or avoid the adverse effects of a proposed action on listed species or critical habitat, help implement recovery plans, or to develop information that could contribute to the recovery of the species.

Based on our experience over many years with consultations pursuant to

section 7 of the Act for all listed species, virtually all projects—including those that, in their initial proposed form, would likely have resulted in jeopardy or adverse modification determinations in section 7 consultations—can be implemented successfully with, at most, the adoption of reasonable and prudent alternatives. Under the Act and its implementing regulations at 50 CFR 402.02, these measures, by definition, must be economically feasible and within the scope of authority of the Federal agency involved in the consultation. The kinds of actions that may be included if future reasonable and prudent alternatives become necessary include conservation set-asides, management of competing non-native species, restoration of degraded habitat, and regular monitoring. These are based on our understanding of the needs of the species and the threats it faces, as described in the final listing rule and this proposed critical habitat designation.

In summary, we have considered whether this proposed rule would result in a significant economic effect on a substantial number of small entities. We have preliminarily determined, for the above reasons and based on currently available information, that it is not likely to affect a substantial number of small entities. Federal involvement, and thus section 7 consultations, would be limited to a subset of the area proposed. The most likely Federal involvement could include Corps permits, permits we may issue under section 10(a)(1)(B) of the Act, FHA funding for road improvements, hydropower licenses issued by the Federal Energy Regulatory Commission, and regulation of timber harvest, grazing, mining, and recreation by the USFS and BLM.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 804(2))

In the economic analysis, we will determine whether designation of critical habitat would cause: (a) Any effect on the economy of \$100 million or more, (b) any increases in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions, or (c) any significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises.

Executive Order 13211

On May 18, 2001, the President issued an Executive Order on regulations that significantly affect energy supply, distribution, and use. Executive Order 13211 requires agencies to prepare

Statements of Energy Effects when undertaking certain actions. This proposed rule is a significant regulatory action under Executive Order 12866.

Currently available information on the potential effects of this proposal on energy supply, distribution, and use is very limited and does not provide a basis for the Service to reach a definitive conclusion regarding such effects at this time. We will conduct an analysis of the potential economic impacts of this proposed critical habitat designation, as required under section 4(b)(2) of the Act. The economic assessment will include consideration of information relevant to effects on energy supply, distribution, and use. We will make the economic analysis available for public review and comment before completing a final designation. We also expect to obtain information on this topic as a result of public comments on the proposed rule. Should such economic analysis, public comments, or other information indicate that this rule will significantly affect energy supply, distribution, and use, we will take any actions that are appropriate.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

We will use the economic analysis to evaluate consistency with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*).

Takings

We will use the economic analysis and comments received on the proposed rule to evaluate whether the proposed rule poses significant takings implications and to evaluate it for consistency with Executive Order 12630, ("Government Actions and Interference with Constitutionally Protected Private Property Rights"). Based on that evaluation, we will take any actions that are appropriate.

Federalism

In accordance with Executive Order 13132, we have coordinated the development of the scientific basis for the proposal of critical habitat for bull trout with the appropriate State agencies. If the economic analysis, public comments, or other information relative to the evaluation of this proposed rule indicates that there would be significant federalism effects, we will take any actions that are appropriate.

Civil Justice Reform

In accordance with Executive Order 12988, the Office of the Solicitor has determined that the proposal would not unduly burden the judicial system and

meets the requirements of sections 3(a) and 3(b)(2) of the Order. We are proposing to designate critical habitat in accordance with the provisions of the Act. The rule uses standard aquatic (stream and lake) descriptions and identifies the primary constituent elements within the designated units to assist Federal agencies and the public in understanding the habitat and conservation needs of the bull trout.

Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.)

This proposed rule would not impose any new requirements for collection of information that require approval by the OMB under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). This proposed rule will not impose new recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. We may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB Control Number. This rule references permits for HCPs which contain information collection activity. The Fish and Wildlife Service has OMB approval for that collection under OMB Control Number 1018-0094.

National Environmental Policy Act

We have determined that we do not need to prepare an Environmental Assessment and/or an Environmental Impact Statement as defined by the National Environmental Policy Act of 1969 in connection with regulations adopted pursuant to section 4(a) of the Act. We published a notice outlining our reasons for this determination on October 25, 1983 (48 FR 49244). This proposed designation does not constitute a major Federal action significantly affecting the quality of the human environment.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), Executive Order 13175, and 512 DM 2, we are coordinating with Federally recognized Tribes on a Government-to-Government basis. Further, Secretarial Order 3206, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act" (1997) provides that critical habitat should not be designated in an area that may impact Tribal trust resources unless it is determined to be essential to the conservation of a listed species. The

Secretarial Order further states that in designating critical habitat, "the Service shall evaluate and document the extent to which the conservation needs of a listed species can be achieved by limiting the designation to other lands."

During our development of this critical habitat proposal for the Columbia River and Klamath River populations of bull trout, we evaluated Tribal lands to determine if they are essential to the conservation of the species. We have proposed critical habitat for portions of Shitike Creek, Jefferson Creek, and the Deschutes, Warm Springs, and Metolius Rivers that are within the Warm Springs Reservation; the Klickitat River and South Fork Ahtanum Creek within the Yakama Reservation; the Umatilla River, Meacham Creek, and Squaw Creek within the Umatilla Reservation; Lake Coeur d'Alene within the Coeur d'Alene Reservation; the Pend Oreille River within the Kalispell Reservation; the Clearwater River, North Fork Clearwater River, Middle Fork Clearwater River, South Fork Clearwater River, Lolo Creek, Clear Creek, and Dworshak Reservoir within the Nez Perce Reservation; portions of Flathead Lake, the lower Flathead River, and the Jocko River watershed on the Flathead Reservation; and portions of the Jocko River watershed, Mission Creek, and Post Creek on the Confederated Salish and Kootenai Tribal Lands on the Flathead Reservation. A total of approximately 1,200 km (750 mi) of stream segments and approximately 70,081 ha (178,070 ac) of lakes and reservoirs on Tribal lands is included in our proposed designation of critical habitat.

Currently, the Yakama Nation, Coeur d'Alene, Kalispell, Nez Perce, Confederated Salish and Kootenai, and Umatilla tribes do not have resource management plans that provide protection or conservation for the bull trout and its habitat. The Confederated Salish and Kootenai Tribes have a resource management plan addressing bull trout conservation that is being applied in the Jocko River watershed. However, as a result of our meetings with the tribes on September 26, 2002, we mutually agreed to include habitat within the Jocko River watershed in this proposed rule for designating critical habitat (Notes of Government-to-Government meeting, September 26, 2002, in our administrative record files).

We met with the Confederated Tribes of the Warm Springs Reservation (CTWSR) in Oregon on August 28, 2002, to discuss the extent to which the waterways of the Reservation provide bull trout habitat that is essential to the

conservation of the species, and the degree to which Tribal management of those waterways and adjacent lands adequately protects those habitats (Notes of Government-to-Government meeting, August 28, 2002, in our administrative record files). As a result of that meeting, we reviewed the existing Integrated Resource Management Plans (CTWSR IRMP I and II) to determine whether the plans provide adequately for the conservation of the species. In conducting this analysis, we considered the level of certainty that the identified management would be implemented, and whether the management measures would be effective in protecting habitat essential to bull trout conservation.

Our analysis determined that management within Warm Springs Tribal "Conditional Use Areas" (CUAs) provides a sufficient level of protection and certainty of implementation such that additional special management considerations or protection is not required. Therefore, on the basis of section 3(5)(A)(i) of the Act, we did not include 63 km (39 mi) of streams within the CUAs as part of our proposed designation of critical habitat. An exception to our general finding regarding CUAs was made with respect to CUAs on the Reservation's southern and southeastern boundaries, where the boundary is defined by the Metolius and Deschutes Rivers. Here, there is uncertainty as to the ability of the Tribal management plans to adequately protect the entire waterway (*i.e.*, the rivers to the bankfull elevation on either shore), because the opposite shore is not part of the Reservation and is not managed as part of a CUA. Therefore, we have included the Metolius and Deschutes Rivers, from bank to bank along the Reservation boundary, as part of our proposed designation of critical habitat. We welcome comments on this issue (*see below*).

With regard to areas outside the CUAs, we found that management regimes for the Warm Springs Reservation lands and waterways that are essential to the conservation of bull trout do require additional special management considerations or protection, and consequently have included such areas in our proposed designation of critical habitat. We recognize that the CTWSR plans have the potential to be adequate if they are further developed to include measures specific to the conservation needs of bull trout. Of particular concern are the grazing management standards in the CTWSR Integrated Resource Management Plan II. The CTWSR IRMP II is an umbrella plan that provides

general guidance. To date, only two of six grazing district plans (the more detailed and landscape-specific guidance documents under the umbrella plan) are nearing completion. The Service will work closely with the CTWSR staff to analyze the ability of any current or draft Tribal management plan to protect essential bull trout habitat. Our goal in doing so will be to limit the final designation of critical habitat for bull trout within the boundaries of the Reservation to the minimum amount of aquatic habitat that is essential to the conservation of the species. We believe this approach to be consistent with our Tribal Trust responsibilities. We welcome comments on this situation (*see below*).

We are committed to maintaining a positive working relationship with all of the Tribes, and will work with them on developing resource management plans for Tribal lands that include conservation measures for bull trout. We were required to prepare this critical habitat proposal based on our analysis of whether habitat within these Tribal reservation lands is essential to the conservation of the species and may require special management considerations or protection. If, prior to issuing a final determination, any Tribes complete management plans that address areas on Tribal lands that are included in this proposed designation of critical habitat, we will consider excluding those areas based on the conservation measures provided for the species.

We invite comments and additional information regarding the management of bull habitat on Tribal lands within the areas encompassed by the Klamath River and Columbia River DPSs, and our proposed designation of critical habitat in relation to such lands (*see Public Comments Solicited section*). This includes, but is not limited to, comments as to whether the areas on Tribal lands that we have proposed for designation should be retained in, or excluded from, the final rule designating critical habitat. We specifically seek comments regarding whether we should retain or exclude, in the final designation of critical habitat, those segments of the Metolius and Deschutes Rivers along the boundary of the CTWSR, where the shores opposite the Reservation are not part of the CTWSR, and there is uncertainty about the ability of the Tribal management plans to protect the entire waterway in those areas.

References Cited

A complete list of all references cited in this proposed rule is available on

request from the U.S. Fish and Wildlife Service, Branch of Endangered Species Office, Portland, OR (see **ADDRESSES** section).

Authors

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List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. In § 17.11(h) revise the entry for “Trout, bull” under “FISHES” to read as follows:

§ 17.11 Endangered and threatened wildlife.

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
* FISHES	*	*	*	*	*		*
* Trout, bull	* <i>Salvelinus confluentus</i> .	* U.S.A. (AK, Pacific NW into CA, ID, NV, MT), Canada (NW Territories).	* U.S.A, coterminous (lower 48 states).	* T	* 637, 639E, 659, 670	* 17.95(e)	* 17.44(w) 17.44(x)
*	*	*	*	*	*		*

3. Amend § 17.95(e) by adding critical habitat for the bull trout (*Salvelinus confluentus*) in the same alphabetical order as this species occurs in § 17.11(h).

§ 17.95 Critical habitat—fish and wildlife.

* * * * *
(e) * * *

Bull Trout (*Salvelinus confluentus*)

(1) Critical habitat is depicted for Adams, Benewah, Blaine, Boise, Bonner, Boundary, Butte, Clearwater, Custer, Idaho, Kootenai, Lemhi, Latah, Lewis, Nez Perce, Pend Oreille, Shoshone, Valley, and Washington counties, Idaho; Flathead, Lake, Lewis and Clark, Lincoln, Mineral, Missoula, Powell, Ravalli, and Sanders counties, Montana; Baker, Columbia, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lane, Linn, Malheur, Morrow, Multnomah, Sherman, Umatilla, Union, Wallowa, Wasco, and Wheeler counties, Oregon; and Asotin, Benton, Chelan, Columbia, Clark, Cowlitz, Douglas, Garfield, Franklin, Kittitas, Klickitat, Okanogan, Pacific, Pend Oreille, Skamania, Wahkiakum, Walla Walla, Whitman,

and Yakima counties, Washington, on the maps and as described below.

(2) Critical habitat includes the stream channels within the proposed stream reaches indicated on the maps below, and includes a lateral extent from the bankfull elevation on one bank to the bankfull elevation on the opposite bank. Bankfull elevation is the level at which water begins to leave the channel and move into the floodplain and is reached at a discharge that generally has a recurrence interval of 1 to 2 years on the annual flood series. If bankfull elevation is not evident on either bank, the ordinary high-water line as defined by the U.S. Army Corps of Engineers (33 CFR 329.11) shall be used to determine the lateral extent of critical habitat. The lateral extent of proposed lakes and reservoirs is defined by the perimeter of the water body as mapped on standard 1:24,000 scale topographic maps.

(3) Within these areas, the primary constituent elements for the bull trout are those habitat components that are essential for the primary biological needs of foraging, reproducing, rearing of young, dispersal, genetic exchange, or sheltering. Existing human-constructed features and structures within the critical habitat boundary, such as

buildings, powerlines, roads, railroads, urban development, and other paved areas will not contain one or more of the primary constituent elements; consequently, Federal actions limited to those areas would not trigger a consultation under section 7 of the Act unless they affect the species and/or primary constituent elements in adjacent critical habitat. The primary constituent elements are:

(i) Permanent water having low levels of contaminants such that normal reproduction, growth and survival are not inhibited;

(ii) Water temperatures ranging from 2 to 15 °C (36 to 59 °F), with adequate thermal refugia available for temperatures at the upper end of this range. Specific temperatures within this range will vary depending on bull trout life-history stage and form, geography, elevation, diurnal and seasonal variation, shade, such as that provided by riparian habitat, and local groundwater influence;

(iii) Complex stream channels with features such as woody debris, side channels, pools, and undercut banks to provide a variety of depths, velocities, and instream structures;

(iv) Substrates of sufficient amount, size, and composition to ensure success of egg and embryo overwinter survival, fry emergence, and young-of-the-year and juvenile survival. A minimal amount of fine substrate less than 0.63 mm (0.25 in) in diameter and minimal substrate embeddness are characteristic of these conditions;

(v) A natural hydrograph, including peak, high, low and base flows within historic ranges or, if regulated, a hydrograph that demonstrates the ability to support bull trout populations;

(vi) Springs, seeps, groundwater sources, and subsurface water

connectivity to contribute to water quality and quantity;

(vii) Migratory corridors with minimal physical, biological or chemical barriers between spawning, rearing, overwintering, and foraging habitats, including intermittent or seasonal barriers induced by high water temperatures or low flows;

(viii) An abundant food base including terrestrial organisms of riparian origin, aquatic macroinvertebrates, and forage fish; and

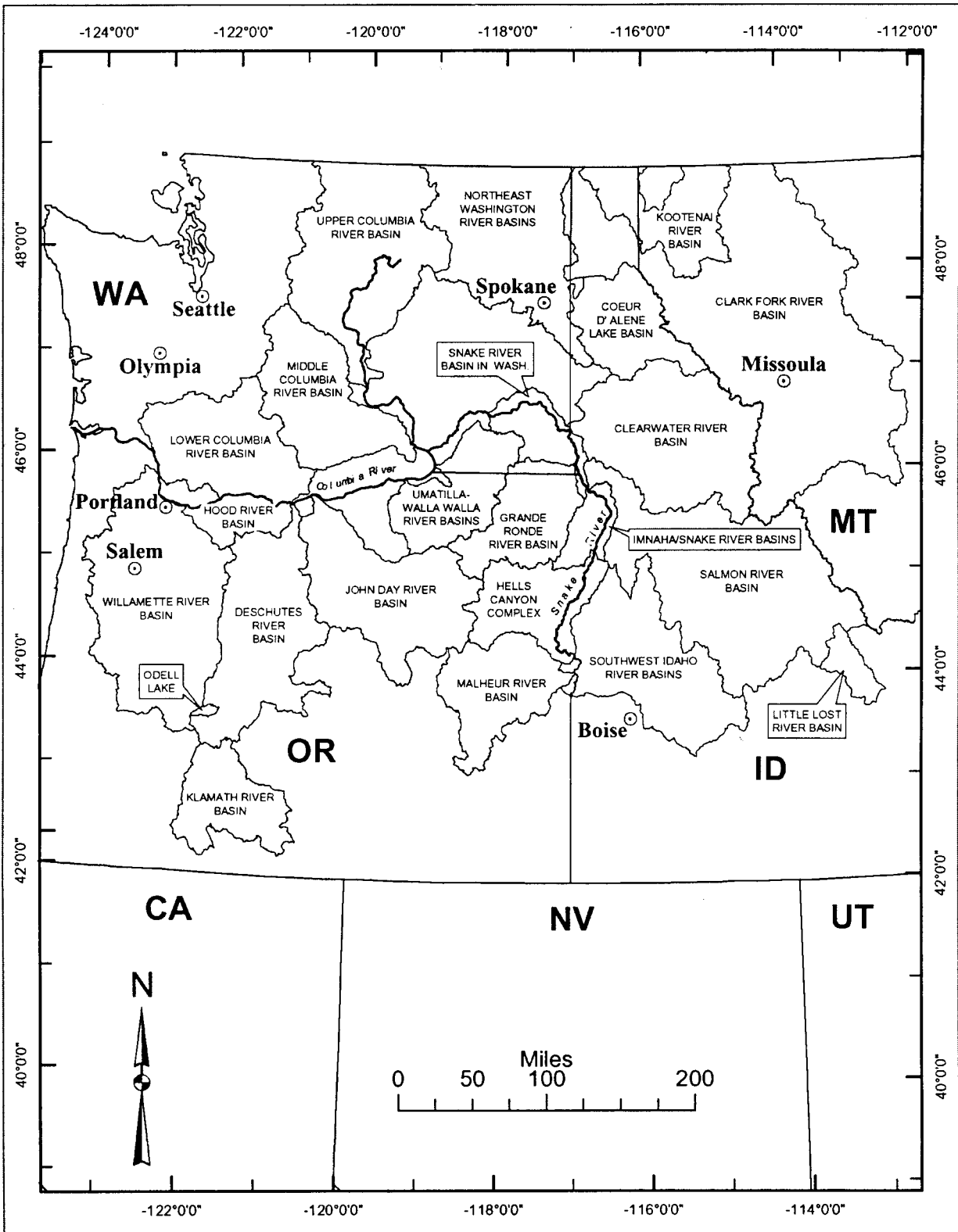
(ix) Few or no predatory, interbreeding, or competitive nonnative species present.

(4) Proposed critical habitat does not include non-Federal lands covered by an incidental take permit for the Columbia River distinct population segment of bull trout issued under section 10(a)(1)(B) of the Act on or before the date of publication of this proposed rule, as long as such permit, or a conservation easement providing comparable conservation benefits, remains legally operative on such lands.

Note: Index map follows:

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Index Map -- Units of Proposed Critical Habitat for the Klamath River
and Columbia River Distinct Population Segments of Bull Trout



(5) Unit 1—Klamath River Basin.

(i) Critical Habitat Subunit—Upper Klamath Lake.

(A) Agency Lake centered at 42.541 degrees latitude, and –121.963 degrees longitude. Crane Creek from a lower point located at 42.628 degrees latitude, and –122.068 degrees longitude to an upper point located at 42.661 degrees latitude, and –122.085 degrees longitude. Crystal Creek from a lower point located at 42.463 degrees latitude, and –122.075 degrees longitude to an upper point located at 42.575 degrees latitude, and –122.081 degrees longitude. Fourmile Creek from a lower point located at 42.539 degrees latitude, and –122.002 degrees longitude to an upper point located at 42.633 degrees latitude, and –122.076 degrees longitude. Fourmile Slough from a lower point located at 42.607 degrees latitude, and –122.046 degrees longitude to an upper point located at 42.535 degrees latitude, and –122.075 degrees longitude. Recreation Creek from a lower point located at 42.477 degrees latitude, and –122.085 degrees longitude to an upper point located at 42.506 degrees latitude, and –122.074 degrees longitude. Sevenmile Canal from a lower point located at 42.582 degrees latitude, and –121.97 degrees longitude to an upper point located at 42.646 degrees latitude, and –122.05 degrees longitude. Sevenmile Creek from a lower point located at 42.646 degrees latitude, and –122.05 degrees longitude to an upper point located at 42.69 degrees latitude, and –122.15 degrees longitude. West Canal from a lower point located at 42.531 degrees latitude, and –122.004 degrees longitude to an upper point located at 42.646 degrees latitude, and –122.05 degrees longitude.

(B) Cherry Creek from a lower point located at 42.631 degrees latitude, and –122.073 degrees longitude to an upper point located at 42.615 degrees latitude, and –122.2 degrees longitude. Rock Creek from a lower point located at 42.554 degrees latitude, and –122.079 degrees longitude to an upper point located at 42.567 degrees latitude, and –122.186 degrees longitude.

(C) Threemile Creek from a lower point located at 42.642 degrees latitude, and –122.065 degrees longitude to an upper point located at 42.64 degrees latitude, and –122.138 degrees longitude.

(D) Annie Creek from a lower point located at 42.722 degrees latitude, and –121.988 degrees longitude to an upper point located at 42.864 degrees latitude, and –122.155 degrees longitude. Crooked Creek from a lower point located at 42.599 degrees latitude, and

–121.945 degrees longitude to an upper point located at 42.687 degrees latitude, and –121.964 degrees longitude. Fort Creek from a lower point located at 42.672 degrees latitude, and –121.979 degrees longitude to an upper point located at 42.695 degrees latitude, and –121.967 degrees longitude. Middle Fork Annie Creek from a lower point located at 42.838 degrees latitude, and –122.127 degrees longitude to an upper point located at 42.886 degrees latitude, and –122.123 degrees longitude. Wood River from a lower point located at 42.577 degrees latitude, and –121.94 degrees longitude to an upper point located at 42.747 degrees latitude, and –121.984 degrees longitude.

(E) Sun Creek from a lower point located at 42.735 degrees latitude, and –122.008 degrees longitude to an upper point located at 42.898 degrees latitude, and –122.096 degrees longitude.

(ii) Critical Habitat Subunit—Sycan Marsh.

(A) Sycan Marsh centered at 42.811 degrees latitude, and –121.113 degrees longitude. Sycan River from a lower point located at 42.78 degrees latitude, and –121.048 degrees longitude to an upper point located at 42.647 degrees latitude, and –120.734 degrees longitude.

(B) Calahan Creek from a lower point located at 42.838 degrees latitude, and –121.266 degrees longitude to an upper point located at 42.924 degrees latitude, and –121.291 degrees longitude. Long Creek from a lower point located at 42.826 degrees latitude, and –121.209 degrees longitude to an upper point located at 42.933 degrees latitude, and –121.338 degrees longitude.

(C) Coyote Creek from a lower point located at 42.854 degrees latitude, and –121.158 degrees longitude to an upper point located at 42.893 degrees latitude, and –121.246 degrees longitude.

(D) Boulder Creek from a lower point located at 42.66 degrees latitude, and –120.783 degrees longitude to an upper point located at 42.674 degrees latitude, and –120.761 degrees longitude. Rifle Creek from a lower point located at 42.694 degrees latitude, and –120.88 degrees longitude to an upper point located at 42.682 degrees latitude, and –120.845 degrees longitude. South Fork Sycan River from a lower point located at 42.663 degrees latitude, and –120.793 degrees longitude to an upper point located at 42.633 degrees latitude, and –120.795 degrees longitude.

(iii) Critical Habitat Subunit—Upper Sprague River.

(A) Boulder Creek from a lower point located at 42.517 degrees latitude, and –120.951 degrees longitude to an upper point located at 42.495 degrees latitude,

and –120.884 degrees longitude. Dixon Creek from a lower point located at 42.518 degrees latitude, and –120.937 degrees longitude to an upper point located at 42.532 degrees latitude, and –120.923 degrees longitude. North Fork Sprague River from a lower point located at 42.497 degrees latitude, and –121.008 degrees longitude to an upper point located at 42.557 degrees latitude, and –120.839 degrees longitude. Unnamed creek—off Dixon Creek from a lower point located at 42.523 degrees latitude, and –120.93 degrees longitude to an upper point located at 42.521 degrees latitude, and –120.921 degrees longitude.

(B) Sheepy Creek from a lower point located at 42.534 degrees latitude, and –120.931 degrees longitude to an upper point located at 42.514 degrees latitude, and –120.89 degrees longitude.

(C) Gearhart Creek from a lower point located at 42.566 degrees latitude, and –120.886 degrees longitude to an upper point located at 42.51 degrees latitude, and –120.871 degrees longitude. Hole Creek from a lower point located at 42.567 degrees latitude, and –120.869 degrees longitude to an upper point located at 42.541 degrees latitude, and –120.86 degrees longitude. Nottin Creek from a lower point located at 42.57 degrees latitude, and –120.87 degrees longitude to an upper point located at 42.532 degrees latitude, and –120.85 degrees longitude. School Creek from a lower point located at 42.604 degrees latitude, and –120.846 degrees longitude to an upper point located at 42.618 degrees latitude, and –120.806 degrees longitude.

(D) Dead Cow Creek from a lower point located at 42.59 degrees latitude, and –120.835 degrees longitude to an upper point located at 42.562 degrees latitude, and –120.779 degrees longitude. Gold Creek from a lower point located at 42.59 degrees latitude, and –120.818 degrees longitude to an upper point located at 42.606 degrees latitude, and –120.794 degrees longitude.

(E) Deming Creek from a lower point located at 42.448 degrees latitude, and –120.953 degrees longitude to an upper point located at 42.486 degrees latitude, and –120.885 degrees longitude.

(F) Brownsworth Creek from a lower point located at 42.392 degrees latitude, and –120.913 degrees longitude to an upper point located at 42.469 degrees latitude, and –120.854 degrees longitude. Camp Creek from a lower point located at 42.445 degrees latitude, and –120.794 degrees longitude to an upper point located at 42.471 degrees latitude, and –120.837 degrees longitude. Corral Creek from a lower

point located at 42.455 degrees latitude, and – 120.782 degrees longitude to an upper point located at 42.481 degrees latitude, and – 120.817 degrees longitude. South Fork Sprague River from a lower point located at 42.392

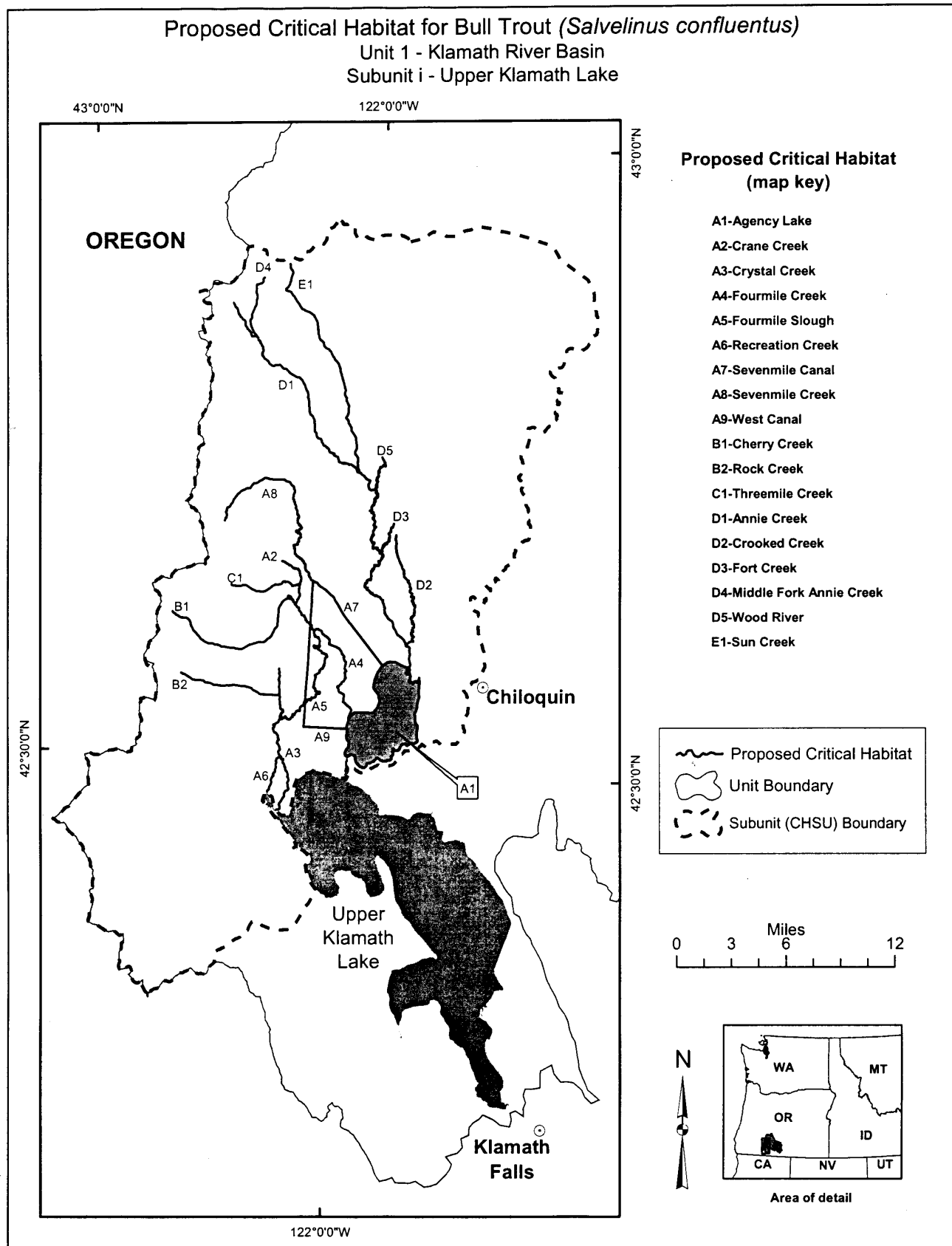
degrees latitude, and – 120.913 degrees longitude to an upper point located at 42.481 degrees latitude, and – 120.784 degrees longitude.

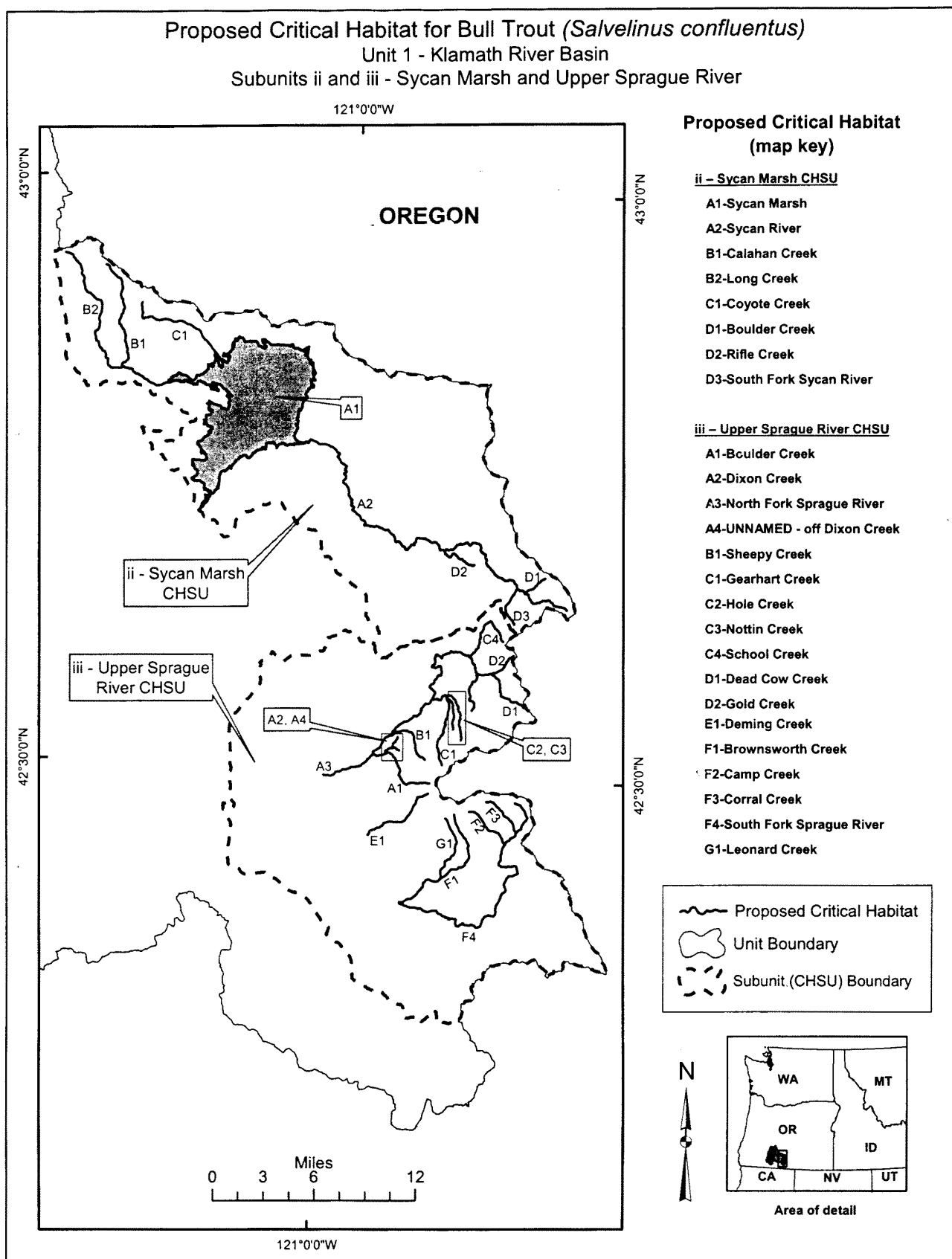
(G) Leonard Creek from a lower point located at 42.413 degrees latitude, and

– 120.867 degrees longitude to an upper point located at 42.465 degrees latitude, and – 120.864 degrees longitude.

Note: Maps follow for Unit 1, Subunit i and Unit 1, Subunits ii and iii.

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(6) Unit 2—Clark Fork River Basin.
(i) Critical Habitat Subunit—Lake Pend Oreille.

(A) Lake Pend Oreille centered at 48.158 degrees latitude, and –116.438 degrees longitude.

(B) East River from a lower point located at 48.353 degrees latitude, and –116.852 degrees longitude to an upper point located at 48.371 degrees latitude, and –116.819 degrees longitude. Middle Fork East River from a lower point located at 48.371 degrees latitude, and –116.819 degrees longitude to an upper point located at 48.362 degrees latitude, and –116.659 degrees longitude. Priest River from a lower point located at 48.178 degrees latitude, and –116.892 degrees longitude to an upper point located at 48.353 degrees latitude, and –116.852 degrees longitude. Tarlac Creek from a lower point located at 48.393 degrees latitude, and –116.737 degrees longitude to an upper point located at 48.349 degrees latitude, and –116.717 degrees longitude. Uleda Creek from a lower point located at 48.388 degrees latitude, and –116.707 degrees longitude to an upper point located at 48.339 degrees latitude, and –116.694 degrees longitude.

(C) Pack River from a lower point located at 48.32 degrees latitude, and –116.382 degrees longitude to an upper point located at 48.613 degrees latitude, and –116.634 degrees longitude.

(D) Grouse Creek from a lower point located at 48.403 degrees latitude, and –116.477 degrees longitude to an upper point located at 48.483 degrees latitude, and –116.228 degrees longitude. North Fork Grouse Creek from a lower point located at 48.452 degrees latitude, and –116.373 degrees longitude to an upper point located at 48.502 degrees latitude, and –116.265 degrees longitude.

(E) Trestle Creek from a lower point located at 48.283 degrees latitude, and –116.352 degrees longitude to an upper point located at 48.352 degrees latitude, and –116.234 degrees longitude.

(F) Gold Creek from a lower point located at 47.971 degrees latitude, and –116.454 degrees longitude to an upper point located at 47.954 degrees latitude, and –116.451 degrees longitude. North Gold Creek from a lower point located at 47.974 degrees latitude, and –116.452 degrees longitude to an upper point located at 47.975 degrees latitude, and –116.426 degrees longitude. West Gold Creek from a lower point located at 47.954 degrees latitude, and –116.451 degrees longitude to an upper point located at 47.944 degrees latitude, and –116.477 degrees longitude.

(G) Dry Gulch from a lower point located at 48.089 degrees latitude, and

–116.357 degrees longitude to an upper point located at 48.087 degrees latitude, and –116.337 degrees longitude.

Granite Creek from a lower point located at 48.087 degrees latitude, and –116.427 degrees longitude to an upper point located at 48.06 degrees latitude, and –116.329 degrees longitude.

Sullivan Springs from a lower point located at 48.088 degrees latitude, and –116.411 degrees longitude to an upper point located at 48.084 degrees latitude, and –116.387 degrees longitude.

(H) Johnson Creek from a lower point located at 48.139 degrees latitude, and –116.229 degrees longitude to an upper point located at 48.131 degrees latitude, and –116.225 degrees longitude.

(I) Clark Fork River from a lower point located at 48.142 degrees latitude, and –116.202 degrees longitude to an upper point located at 48.089 degrees latitude, and –116.048 degrees longitude.

(J) Char Creek from a lower point located at 48.262 degrees latitude, and –116.067 degrees longitude to an upper point located at 48.291 degrees latitude, and –116.073 degrees longitude. East Fork Creek from a lower point located at 48.241 degrees latitude, and –116.112 degrees longitude to an upper point located at 48.262 degrees latitude, and –116.039 degrees longitude.

Lightning Creek from a lower point located at 48.14 degrees latitude, and –116.191 degrees longitude to an upper point located at 48.353 degrees latitude, and –116.175 degrees longitude. Morris Creek from a lower point located at 48.224 degrees latitude, and –116.117 degrees longitude to an upper point located at 48.208 degrees latitude, and –116.08 degrees longitude. Porcupine Creek from a lower point located at 48.267 degrees latitude, and –116.123 degrees longitude to an upper point located at 48.253 degrees latitude, and –116.156 degrees longitude. Rattle Creek from a lower point located at 48.326 degrees latitude, and –116.172 degrees longitude to an upper point located at 48.314 degrees latitude, and –116.1 degrees longitude. Savage Creek from a lower point located at 48.248 degrees latitude, and –116.096 degrees longitude to an upper point located at 48.226 degrees latitude, and –116.028 degrees longitude. Wellington Creek from a lower point located at 48.29 degrees latitude, and –116.162 degrees longitude to an upper point located at 48.295 degrees latitude, and –116.173 degrees longitude.

(K) Dry Creek from a lower point located at 48.094 degrees latitude, and –116.129 degrees longitude to an upper point located at 48.089 degrees latitude, and –116.122 degrees longitude. Twin Creek from a lower point located at

48.089 degrees latitude, and –116.122 degrees longitude to an upper point located at 48.063 degrees latitude, and –116.151 degrees longitude.

(ii) Critical Habitat Subunit—Lower Clark Fork River.

(A) Cabinet Gorge Reservoir centered at 48.036 degrees latitude, and –115.872 degrees longitude.

(B) Bull River from a lower point located at 48.036 degrees latitude, and –115.844 degrees longitude to an upper point located at 48.109 degrees latitude, and –115.782 degrees longitude.

Copper Creek from a lower point located at 48.088 degrees latitude, and –115.773 degrees longitude to an upper point located at 48.078 degrees latitude, and –115.685 degrees longitude. East Fork Bull River from a lower point located at 48.109 degrees latitude, and –115.782 degrees longitude to an upper point located at 48.091 degrees latitude, and –115.645 degrees longitude. South Fork Bull River from a lower point located at 48.109 degrees latitude, and –115.782 degrees longitude to an upper point located at 48.152 degrees latitude, and –115.784 degrees longitude.

(C) Rock Creek from a lower point located at 47.975 degrees latitude, and –115.742 degrees longitude to an upper point located at 48.04 degrees latitude, and –115.676 degrees longitude.

(D) Noxon Rapids Reservoir centered at 47.892 degrees latitude, and –115.705 degrees longitude.

(E) Crow Creek from a lower point located at 47.539 degrees latitude, and –115.557 degrees longitude. Crow Creek, East Fork, from a lower point located at 47.525 degrees latitude, and –115.557 degrees longitude to an upper point located at 47.48 degrees latitude, and –115.542 degrees longitude. Graves Creek from a lower point located at 47.682 degrees latitude, and –115.409 degrees longitude to an upper point located at 47.718 degrees latitude, and –115.38 degrees longitude. Prospect Creek from a lower point located at 47.592 degrees latitude, and –115.358 degrees longitude to an upper point located at 47.569 degrees latitude, and –115.676 degrees longitude. Vermilion River from a lower point located at 47.833 degrees latitude, and –115.535 degrees longitude to an upper point located at 47.869 degrees latitude, and –115.409 degrees longitude.

(F) Clark Fork River from a lower point located at 47.813 degrees latitude, and –115.53 degrees longitude to an upper point located at 47.366 degrees latitude, and –114.776 degrees longitude.

(G) Beatrice Creek from a lower point located at 47.794 degrees latitude, and –115.102 degrees longitude to an upper

point located at 47.765 degrees latitude, and –115.201 degrees longitude. Fishtrap Creek from a lower point located at 47.713 degrees latitude, and –115.058 degrees longitude to an upper point located at 47.817 degrees latitude, and –115.144 degrees longitude. Fishtrap Creek, West Fork from a lower point located at 47.817 degrees latitude, and –115.144 degrees longitude to an upper point located at 47.769 degrees latitude, and –115.243 degrees longitude. Thompson River from a lower point located at 47.576 degrees latitude, and –115.24 degrees longitude to an upper point located at 47.713 degrees latitude, and –115.058 degrees longitude. Thompson River, West Fork, from a lower point located at 47.65 degrees latitude, and –115.173 degrees longitude to an upper point located at 47.708 degrees latitude, and –115.208 degrees longitude.

(H) Flathead River from a lower point located at 47.366 degrees latitude, and –114.776 degrees longitude to an upper point located at 47.354 degrees latitude, and –114.285 degrees longitude.

(I) Jocko River from a lower point located at 47.322 degrees latitude, and –114.304 degrees longitude to an upper point located at 47.201 degrees latitude, and –113.924 degrees longitude. Jocko River, Middle Fork, from a lower point located at 47.201 degrees latitude, and –113.924 degrees longitude to an upper point located at 47.203 degrees latitude, and –113.761 degrees longitude. Jocko River, North Fork, from a lower point located at 47.201 degrees latitude, and –113.924 degrees longitude to an upper point located at 47.226 degrees latitude, and –113.816 degrees longitude. Jocko River, South Fork, from a lower point located at 47.195 degrees latitude, and –113.852 degrees longitude to an upper point located at 47.104 degrees latitude, and –113.766 degrees longitude.

(J) Dry Creek from a lower point located at 47.305 degrees latitude, and –114.064 degrees longitude to an upper point located at 47.259 degrees latitude, and –113.903 degrees longitude. McDonald Lake centered at 47.421 degrees latitude, and –113.977 degrees longitude. Mission Creek from a lower point located at 47.354 degrees latitude, and –114.285 degrees longitude to an upper point located at 47.32 degrees latitude, and –113.988 degrees longitude. Mission Reservoir centered at 47.319 degrees latitude, and –114.007 degrees longitude. Post Creek from a lower point located at 47.36 degrees latitude, and –114.168 degrees longitude to an upper point located at 47.41 degrees latitude, and –113.935 degrees longitude. Saint Mary's Lake

centered at 47.261 degrees latitude, and –113.922 degrees longitude.
(iii) Critical Habitat Subunit—Middle Clark Fork River.

(A) Clark Fork River from a lower point located at 47.366 degrees latitude, and –114.776 degrees longitude to an upper point located at 46.87 degrees latitude, and –113.889 degrees longitude.

(B) Big Creek from a lower point located at 47.378 degrees latitude, and –115.384 degrees longitude to an upper point located at 47.364 degrees latitude, and –115.444 degrees longitude. Big Creek, East Fork, from a lower point located at 47.362 degrees latitude, and –115.429 degrees longitude to an upper point located at 47.284 degrees latitude, and –115.455 degrees longitude. Big Creek, Middle Fork, from a lower point located at 47.364 degrees latitude, and –115.444 degrees longitude to an upper point located at 47.312 degrees latitude, and –115.492 degrees longitude. Big Creek, West Fork from a lower point located at 47.364 degrees latitude, and –115.444 degrees longitude to an upper point located at 47.35 degrees latitude, and –115.544 degrees longitude. Deer Creek from a lower point located at 47.377 degrees latitude, and –115.359 degrees longitude to an upper point located at 47.326 degrees latitude, and –115.389 degrees longitude. Little Joe Creek from a lower point located at 47.297 degrees latitude, and –115.12 degrees longitude to an upper point located at 47.27 degrees latitude, and –115.14 degrees longitude. Little Joe Creek, North Fork from a lower point located at 47.27 degrees latitude, and –115.14 degrees longitude to an upper point located at 47.186 degrees latitude, and –115.285 degrees longitude. Little Joe Creek, South Fork from a lower point located at 47.27 degrees latitude, and –115.14 degrees longitude to an upper point located at 47.154 degrees latitude, and –115.234 degrees longitude. St. Regis River from a lower point located at 47.297 degrees latitude, and –115.089 degrees longitude to an upper point located at 47.427 degrees latitude, and –115.741 degrees longitude. Twelvemile Creek from a lower point located at 47.35 degrees latitude, and –115.291 degrees longitude to an upper point located at 47.465 degrees latitude, and –115.324 degrees longitude. Ward Creek from a lower point located at 47.312 degrees latitude, and –115.233 degrees longitude to an upper point located at 47.274 degrees latitude, and –115.364 degrees longitude.

(C) Cedar Creek from a lower point located at 47.178 degrees latitude, and –114.862 degrees longitude to an upper

point located at 47.049 degrees latitude, and –115.043 degrees longitude. Lost Creek from a lower point located at 47.128 degrees latitude, and –115.012 degrees longitude to an upper point located at 47.101 degrees latitude, and –115.126 degrees longitude. Oregon Gulch from a lower point located at 47.144 degrees latitude, and –114.967 degrees longitude to an upper point located at 47.128 degrees latitude, and –115.012 degrees longitude.

(D) Trout Creek from a lower point located at 47.143 degrees latitude, and –114.829 degrees longitude to an upper point located at 47.004 degrees latitude, and –114.992 degrees longitude.

(E) Cache Creek from a lower point located at 46.814 degrees latitude, and –114.639 degrees longitude to an upper point located at 46.726 degrees latitude, and –114.758 degrees longitude. Fish Creek from a lower point located at 47.004 degrees latitude, and –114.699 degrees longitude to an upper point located at 46.927 degrees latitude, and –114.696 degrees longitude. Fish Creek, North Fork, from a lower point located at 46.907 degrees latitude, and –114.805 degrees longitude to an upper point located at 46.929 degrees latitude, and –114.944 degrees longitude. Fish Creek, South Fork, from a lower point located at 46.927 degrees latitude, and –114.696 degrees longitude to an upper point located at 46.753 degrees latitude, and –114.571 degrees longitude. Fish Creek, West Fork, from a lower point located at 46.927 degrees latitude, and –114.696 degrees longitude to an upper point located at 46.812 degrees latitude, and –114.89 degrees longitude. Indian Creek from a lower point located at 46.855 degrees latitude, and –114.835 degrees longitude to an upper point located at 46.838 degrees latitude, and –114.834 degrees longitude. Montana Creek from a lower point located at 46.8 degrees latitude, and –114.654 degrees longitude to an upper point located at 46.808 degrees latitude, and –114.762 degrees longitude. Straight Creek from a lower point located at 46.91 degrees latitude, and –114.815 degrees longitude to an upper point located at 46.86 degrees latitude, and –114.937 degrees longitude. Surveyors Creek from a lower point located at 46.846 degrees latitude, and –114.683 degrees longitude to an upper point located at 46.823 degrees latitude, and –114.757 degrees longitude. White Creek from a lower point located at 46.797 degrees latitude, and –114.659 degrees longitude to an upper point located at 46.753 degrees latitude, and –114.614 degrees longitude.

(F) Petty Creek from a lower point located at 46.992 degrees latitude, and

– 114.446 degrees longitude to an upper point located at 46.85 degrees latitude, and – 114.438 degrees longitude.

(G) Rattlesnake Creek from a lower point located at 46.867 degrees latitude, and – 113.985 degrees longitude to an upper point located at 47.098 degrees latitude, and – 113.909 degrees longitude.

(iv) Critical Habitat Subunit—Upper Clark Fork River.

(A) Clark Fork River from a lower point located at 46.87 degrees latitude, and – 113.889 degrees longitude to an upper point located at 46.21 degrees latitude, and – 112.767 degrees longitude.

(B) Harvey Creek from a lower point located at 46.707 degrees latitude, and – 113.372 degrees longitude to an upper point located at 46.581 degrees latitude, and – 113.573 degrees longitude.

(C) Flint Creek from a lower point located at 46.654 degrees latitude, and – 113.145 degrees longitude to an upper point located at 46.478 degrees latitude, and – 113.237 degrees longitude.

(D) Boulder Creek from a lower point located at 46.478 degrees latitude, and – 113.237 degrees longitude to an upper point located at 46.343 degrees latitude, and – 113.076 degrees longitude. South Boulder Creek from a lower point located at 46.441 degrees latitude, and – 113.214 degrees longitude to an upper point located at 46.33 degrees latitude, and – 113.219 degrees longitude.

(E) Little Blackfoot River from a lower point located at 46.515 degrees latitude, and – 112.797 degrees longitude to an upper point located at 46.341 degrees latitude, and – 112.465 degrees longitude.

(F) Racetrack Creek from a lower point located at 46.285 degrees latitude, and – 112.729 degrees longitude to an upper point located at 46.279 degrees latitude, and – 112.949 degrees longitude.

(G) Barker Creek from a lower point located at 46.163 degrees latitude, and – 113.115 degrees longitude to an upper point located at 46.1 degrees latitude, and – 113.115 degrees longitude. Cable Creek from a lower point located at 46.172 degrees latitude, and – 113.18 degrees longitude to an upper point located at 46.196 degrees latitude, and – 113.213 degrees longitude. Foster Creek from a lower point located at 46.164 degrees latitude, and – 113.12 degrees longitude to an upper point located at 46.283 degrees latitude, and – 113.109 degrees longitude. Storm Lake Creek from a lower point located at 46.169 degrees latitude, and – 113.153 degrees longitude to an upper point located at 46.075 degrees latitude, and – 113.267 degrees longitude. Twin

Lakes Creek from a lower point located at 46.169 degrees latitude, and

– 113.152 degrees longitude to an upper point located at 46.056 degrees latitude, and – 113.226 degrees longitude. Warm Springs Creek from a lower point located at 46.21 degrees latitude, and – 112.767 degrees longitude to an upper point located at 46.261 degrees latitude, and – 113.137 degrees longitude.

(v) Critical Habitat Subunit—Priest Lakes and River.

(A) Cedar Creek from a lower point located at 48.88 degrees latitude, and – 116.959 degrees longitude to an upper point located at 48.909 degrees latitude, and – 116.885 degrees longitude. Lime Creek from a lower point located at 48.894 degrees latitude, and – 116.964 degrees longitude to an upper point located at 48.938 degrees latitude, and – 116.929 degrees longitude. Rock Creek from a lower point located at 48.906 degrees latitude, and – 116.97 degrees longitude to an upper point located at 48.954 degrees latitude, and – 116.945 degrees longitude. Upper Priest River from a lower point located at 48.799 degrees latitude, and – 116.911 degrees longitude to an upper point located at 49 degrees latitude, and – 116.936 degrees longitude.

(B) Gold Creek from a lower point located at 48.821 degrees latitude, and – 116.973 degrees longitude to an upper point located at 48.807 degrees latitude, and – 117.112 degrees longitude. Hughes Fork from a lower point located at 48.805 degrees latitude, and – 116.923 degrees longitude to an upper point located at 48.946 degrees latitude, and – 117.023 degrees longitude.

(C) Upper Priest Lake centered at 48.785 degrees latitude, and – 116.888 degrees longitude.

(D) Trapper Creek from a lower point located at 48.796 degrees latitude, and – 116.896 degrees longitude to an upper point located at 48.877 degrees latitude, and – 116.846 degrees longitude.

(E) Priest Lake centered at 48.588 degrees latitude, and – 116.864 degrees longitude. The Thorofare from a lower point located at 48.74 degrees latitude, and – 116.842 degrees longitude to an upper point located at 48.766 degrees latitude, and – 116.864 degrees longitude.

(F) Lion Creek from a lower point located at 48.736 degrees latitude, and – 116.831 degrees longitude to an upper point located at 48.725 degrees latitude, and – 116.672 degrees longitude. South Fork Lion Creek from a lower point located at 48.743 degrees latitude, and – 116.797 degrees longitude to an upper point located at 48.716 degrees latitude, and – 116.718 degrees longitude.

(G) Two Mouth Creek from a lower point located at 48.688 degrees latitude, and – 116.836 degrees longitude to an upper point located at 48.674 degrees latitude, and – 116.676 degrees longitude.

(H) Granite Creek from a lower point located at 48.639 degrees latitude, and – 116.863 degrees longitude to an upper point located at 48.7 degrees latitude, and – 117.029 degrees longitude. North Fork Granite Creek from a lower point located at 48.7 degrees latitude, and – 117.029 degrees longitude to an upper point located at 48.77 degrees latitude, and – 117.142 degrees longitude. South Fork Granite Creek from a lower point located at 48.7 degrees latitude, and – 117.029 degrees longitude to an upper point located at 48.761 degrees latitude, and – 117.147 degrees longitude.

(I) Indian Creek from a lower point located at 48.61 degrees latitude, and – 116.836 degrees longitude to an upper point located at 48.634 degrees latitude, and – 116.789 degrees longitude. North Fork Indian Creek from a lower point located at 48.634 degrees latitude, and – 116.789 degrees longitude to an upper point located at 48.627 degrees latitude, and – 116.691 degrees longitude. South Fork Indian Creek from a lower point located at 48.634 degrees latitude, and – 116.789 degrees longitude to an upper point located at 48.624 degrees latitude, and – 116.716 degrees longitude.

(J) Kalispell Creek from a lower point located at 48.567 degrees latitude, and – 116.921 degrees longitude to an upper point located at 48.626 degrees latitude, and – 117.134 degrees longitude.

(K) Soldier Creek from a lower point located at 48.503 degrees latitude, and – 116.838 degrees longitude to an upper point located at 48.547 degrees latitude, and – 116.698 degrees longitude.

(vi) Critical Habitat Subunit—Flathead Lake, Flathead River and 20 Headwater lakes.

(A) Flathead Lake centered at 47.886 degrees latitude, and – 114.133 degrees longitude.

(B) Flathead River from a lower point located at 48.061 degrees latitude, and – 114.127 degrees longitude to an upper point located at 48.468 degrees latitude, and – 114.069 degrees longitude. Flathead River, Middle Fork from a lower point located at 48.468 degrees latitude, and – 114.069 degrees longitude to an upper point located at 47.996 degrees latitude, and – 113.057 degrees longitude. Flathead River, North Fork from a lower point located at 48.468 degrees latitude, and – 114.069 degrees longitude to an upper point located at 49 degrees latitude, and – 114.474 degrees longitude.

(C) Nyack Creek from a lower point located at 48.452 degrees latitude, and – 113.796 degrees longitude to an upper point located at 48.489 degrees latitude, and – 113.7 degrees longitude.

(D) Park Creek from a lower point located at 48.31 degrees latitude, and – 113.613 degrees longitude to an upper point located at 48.369 degrees latitude, and – 113.49 degrees longitude.

(E) Ole Creek from a lower point located at 48.283 degrees latitude, and – 113.598 degrees longitude to an upper point located at 48.315 degrees latitude, and – 113.463 degrees longitude.

(F) Bear Creek from a lower point located at 48.234 degrees latitude, and – 113.566 degrees longitude to an upper point located at 48.296 degrees latitude, and – 113.384 degrees longitude.

(G) Long Creek from a lower point located at 48.157 degrees latitude, and – 113.529 degrees longitude to an upper point located at 48.094 degrees latitude, and – 113.496 degrees longitude.

(H) Granite Creek from a lower point located at 48.145 degrees latitude, and – 113.376 degrees longitude to an upper point located at 48.226 degrees latitude, and – 113.332 degrees longitude.

(I) Lodgepole Creek from a lower point located at 48.115 degrees latitude, and – 113.264 degrees longitude to an upper point located at 48.123 degrees latitude, and – 113.233 degrees longitude. Morrison Creek from a lower point located at 48.11 degrees latitude, and – 113.31 degrees longitude to an upper point located at 48.22 degrees latitude, and – 113.272 degrees longitude. Puzzle Creek from a lower point located at 48.22 degrees latitude, and – 113.272 degrees longitude to an upper point located at 48.187 degrees latitude, and – 113.247 degrees longitude. Whistler Creek from a lower point located at 48.123 degrees latitude, and – 113.233 degrees longitude to an upper point located at 48.169 degrees latitude, and – 113.226 degrees longitude.

(J) Dolly Varden Creek from a lower point located at 48.066 degrees latitude, and – 113.244 degrees longitude to an upper point located at 47.995 degrees latitude, and – 113.184 degrees longitude. Schafer Creek from a lower point located at 48.071 degrees latitude, and – 113.25 degrees longitude to an upper point located at 48.038 degrees latitude, and – 113.269 degrees longitude.

(K) Clack Creek from a lower point located at 48.012 degrees latitude, and – 113.089 degrees longitude to an upper point located at 47.988 degrees latitude, and – 113.104 degrees longitude.

(L) Basin Creek from a lower point located at 47.966 degrees latitude, and

– 112.995 degrees longitude to an upper point located at 47.935 degrees latitude, and – 113.073 degrees longitude. Bowl Creek from a lower point located at 47.996 degrees latitude, and – 113.057 degrees longitude to an upper point located at 47.966 degrees latitude, and – 112.995 degrees longitude. Scalp Creek from a lower point located at 47.982 degrees latitude, and – 113.041 degrees longitude to an upper point located at 47.957 degrees latitude, and – 113.081 degrees longitude.

(M) Gateway Creek from a lower point located at 48.03 degrees latitude, and – 113.021 degrees longitude to an upper point located at 48.046 degrees latitude, and – 112.958 degrees longitude. Strawberry Creek from a lower point located at 47.996 degrees latitude, and – 113.057 degrees longitude to an upper point located at 48.132 degrees latitude, and – 113.033 degrees longitude. Strawberry Creek, East Fork, from a lower point located at 48.064 degrees latitude, and – 113.03 degrees longitude to an upper point located at 48.089 degrees latitude, and – 112.983 degrees longitude. Trail Creek from a lower point located at 48.014 degrees latitude, and – 113.019 degrees longitude to an upper point located at 48.012 degrees latitude, and – 112.946 degrees longitude.

(N) Big Creek from a lower point located at 48.604 degrees latitude, and – 14.163 degrees longitude to an upper point located at 48.551 degrees latitude, and – 114.335 degrees longitude. Hallowat Creek from a lower point located at 48.575 degrees latitude, and – 114.316 degrees longitude to an upper point located at 48.615 degrees latitude, and – 114.456 degrees longitude. Kletomus Creek from a lower point located at 48.602 degrees latitude, and – 114.413 degrees longitude to an upper point located at 48.644 degrees latitude, and – 114.413 degrees longitude. Skookoleel Creek from a lower point located at 48.571 degrees latitude, and – 114.313 degrees longitude to an upper point located at 48.522 degrees latitude, and – 114.295 degrees longitude. Werner Creek from a lower point located at 48.594 degrees latitude, and – 114.364 degrees longitude to an upper point located at 48.585 degrees latitude, and – 114.413 degrees longitude.

(O) Coal Creek from a lower point located at 48.69 degrees latitude, and – 114.193 degrees longitude to an upper point located at 48.698 degrees latitude, and – 114.494 degrees longitude. Coal Creek, South Fork from a lower point located at 48.68 degrees latitude, and – 114.345 degrees longitude to an upper point located at 48.674 degrees latitude, and – 114.471 degrees longitude.

Cyclone Creek from a lower point located at 48.665 degrees latitude, and – 114.238 degrees longitude to an upper point located at 48.712 degrees latitude, and – 114.391 degrees longitude.

Mathias Creek from a lower point located at 48.669 degrees latitude, and – 114.422 degrees longitude to an upper point located at 48.647 degrees latitude, and – 114.471 degrees longitude.

(P) Cyclone Lake centered at 48.705 degrees latitude, and – 114.3 degrees longitude.

(Q) Red Meadow Creek from a lower point located at 48.805 degrees latitude, and – 114.324 degrees longitude to an upper point located at 48.753 degrees latitude, and – 114.565 degrees longitude.

(R) Shorty Creek from a lower point located at 48.851 degrees latitude, and – 114.593 degrees longitude to an upper point located at 48.818 degrees latitude, and – 114.613 degrees longitude. Shorty Creek, South Fork, from a lower point located at 48.818 degrees latitude, and – 114.613 degrees longitude to an upper point located at 48.804 degrees latitude, and – 114.613 degrees longitude. Whale Creek from a lower point located at 48.849 degrees latitude, and – 114.352 degrees longitude to an upper point located at 48.851 degrees latitude, and – 114.593 degrees longitude.

(S) Trail Creek from a lower point located at 48.924 degrees latitude, and – 114.386 degrees longitude to an upper point located at 48.934 degrees latitude, and – 114.534 degrees longitude.

(T) Swift Creek from a lower point located at 48.481 degrees latitude, and – 114.424 degrees longitude to an upper point located at 48.654 degrees latitude, and – 114.55 degrees longitude. Swift Creek, West Fork from a lower point located at 48.654 degrees latitude, and – 114.55 degrees longitude to an upper point located at 48.723 degrees latitude, and – 114.667 degrees longitude. Whitefish Lake centered at 48.451 degrees latitude, and – 114.381 degrees longitude.

(U) Swift Creek, East Fork from a lower point located at 48.687 degrees latitude, and – 114.582 degrees longitude to an upper point located at 48.756 degrees latitude, and – 114.583 degrees longitude. Upper Whitefish Lake centered at 48.687 degrees latitude, and – 114.578 degrees longitude.

(V) Fitzsimmons Creek from a lower point located at 48.735 degrees latitude, and – 114.733 degrees longitude to an upper point located at 48.752 degrees latitude, and – 114.618 degrees longitude. Stillwater River from a lower point located at 48.604 degrees latitude, and – 114.655 degrees longitude to an upper point located at 48.789 degrees

latitude, and -114.685 degrees longitude. Upper Stillwater Lake centered at 48.588 degrees latitude, and -114.636 degrees longitude.

(W) Lake McDonald centered at 48.584 degrees latitude, and -113.925 degrees longitude. McDonald Creek from a lower point located at 48.632 degrees latitude, and -113.868 degrees longitude to an upper point located at 48.646 degrees latitude, and -113.847 degrees longitude.

(X) Lincoln Creek from a lower point located at 48.592 degrees latitude, and -113.766 degrees longitude to an upper point located at 48.595 degrees latitude, and -113.758 degrees longitude. Lincoln Lake centered at 48.591 degrees latitude, and -113.77 degrees longitude.

(Y) Harrison Creek from a lower point located at 48.529 degrees latitude, and -113.75 degrees longitude to an upper point located at 48.574 degrees latitude, and -113.701 degrees longitude. Harrison Lake centered at 48.516 degrees latitude, and -113.77 degrees longitude.

(Z) Lake Isabel centered at 48.422 degrees latitude, and -113.493 degrees longitude. Park Creek from a lower point located at 48.422 degrees latitude, and -113.496 degrees longitude to an upper point located at 48.421 degrees latitude, and -113.505 degrees longitude.

(AA) Arrow Lake centered at 48.706 degrees latitude, and -113.884 degrees longitude. Camas Creek from a lower point located at 48.69 degrees latitude, and -113.901 degrees longitude to an upper point located at 48.738 degrees latitude, and -113.883 degrees longitude. Trout Lake centered at 48.68 degrees latitude, and -113.909 degrees longitude.

(BB) Logging Creek from a lower point located at 48.784 degrees latitude, and -114.002 degrees longitude to an upper point located at 48.776 degrees latitude, and -114.019 degrees longitude. Logging Lake centered at 48.758 degrees latitude, and -114.074 degrees longitude.

(CC) Cerulean Lake centered at 48.872 degrees latitude, and -114.056 degrees longitude. Lower Quartz Lake centered at 48.807 degrees latitude, and -114.171 degrees longitude. Middle Quartz Lake centered at 48.822 degrees latitude, and -114.141 degrees longitude. Quartz Creek from a lower point located at 48.815 degrees latitude, and -114.165 degrees longitude to an upper point located at 48.839 degrees latitude, and -114.003 degrees longitude. Quartz Lake centered at 48.828 degrees latitude, and -114.095 degrees longitude. Rainbow Creek from a lower point located at 48.855 degrees latitude, and -114.053

degrees longitude to an upper point located at 48.869 degrees latitude, and -114.052 degrees longitude.

(DD) Bowman Creek from a lower point located at 48.906 degrees latitude, and -114.117 degrees longitude to an upper point located at 48.974 degrees latitude, and -114.063 degrees longitude. Bowman Lake centered at 48.872 degrees latitude, and -114.153 degrees longitude.

(EE) Akokala Creek from a lower point located at 48.881 degrees latitude, and -114.198 degrees longitude to an upper point located at 48.892 degrees latitude, and -114.191 degrees longitude. Akokala Lake centered at 48.879 degrees latitude, and -114.198 degrees longitude.

(FF) Kintla Creek from a lower point located at 48.975 degrees latitude, and -114.25 degrees longitude to an upper point located at 48.986 degrees latitude, and -114.063 degrees longitude. Kintla Lake centered at 48.959 degrees latitude, and -114.306 degrees longitude.

(GG) Upper Kintla Lake centered at 48.976 degrees latitude, and -114.175 degrees longitude.

(HH) Frozen Creek from a lower point located at 48.999 degrees latitude, and -114.685 degrees longitude to an upper point located at 48.99 degrees latitude, and -114.737 degrees longitude. Frozen Lake centered at 48.999 degrees latitude, and -114.68 degrees longitude.

(vii) Critical Habitat Subunit—Swan.

(A) Swan Lake centered at 47.945 degrees latitude, and -113.878 degrees longitude. Swan River from a lower point located at 47.928 degrees latitude, and -113.88 degrees longitude to an upper point located at 47.295 degrees latitude, and -113.782 degrees longitude.

(B) Lost Creek from a lower point located at 47.873 degrees latitude, and -113.824 degrees longitude to an upper point located at 47.87 degrees latitude, and -113.848 degrees longitude. Lost Creek, North Fork from a lower point located at 47.873 degrees latitude, and -113.824 degrees longitude to an upper point located at 47.897 degrees latitude, and -113.737 degrees longitude. Lost Creek, South Fork from a lower point located at 47.873 degrees latitude, and -113.824 degrees longitude to an upper point located at 47.869 degrees latitude, and -113.736 degrees longitude.

(C) Soup Creek from a lower point located at 47.837 degrees latitude, and -113.843 degrees longitude to an upper point located at 47.812 degrees latitude, and -113.751 degrees longitude.

(D) Woodward Creek from a lower point located at 47.777 degrees latitude, and -113.845 degrees longitude to an upper point located at 47.767 degrees

latitude, and -113.879 degrees longitude. Woodward Creek, South Fork from a lower point located at 47.754 degrees latitude, and -113.857 degrees longitude to an upper point located at 47.717 degrees latitude, and -113.857 degrees longitude.

(E) Goat Creek from a lower point located at 47.749 degrees latitude, and -113.828 degrees longitude to an upper point located at 47.773 degrees latitude, and -113.694 degrees longitude. Squeezer Creek from a lower point located at 47.75 degrees latitude, and -113.815 degrees longitude to an upper point located at 47.717 degrees latitude, and -113.727 degrees longitude.

(F) Lion Creek from a lower point located at 47.681 degrees latitude, and -113.815 degrees longitude to an upper point located at 47.67 degrees latitude, and -113.71 degrees longitude.

(G) Piper Creek from a lower point located at 47.675 degrees latitude, and -113.815 degrees longitude to an upper point located at 47.637 degrees latitude, and -113.844 degrees longitude.

(H) Jim Creek from a lower point located at 47.648 degrees latitude, and -113.792 degrees longitude to an upper point located at 47.575 degrees latitude, and -113.856 degrees longitude.

(I) Cold Creek from a lower point located at 47.584 degrees latitude, and -113.756 degrees longitude to an upper point located at 47.562 degrees latitude, and -113.81 degrees longitude.

(J) Elk Creek from a lower point located at 47.544 degrees latitude, and -113.741 degrees longitude to an upper point located at 47.48 degrees latitude, and -113.856 degrees longitude.

(K) Crystal Creek from a lower point located at 47.336 degrees latitude, and -113.767 degrees longitude to an upper point located at 47.334 degrees latitude, and -113.775 degrees longitude.

Lindbergh Lake centered at 47.379 degrees latitude, and -113.739 degrees longitude.

(L) Holland Creek from a lower point located at 47.451 degrees latitude, and -113.572 degrees longitude to an upper point located at 47.451 degrees latitude, and -113.58 degrees longitude. Holland Lake centered at 47.448 degrees latitude, and -113.597 degrees longitude.

(viii) Critical Habitat Subunit—Hungry Horse Reservoir.

(A) Flathead River, South Fork from a lower point located at 47.445 degrees latitude, and -113.183 degrees longitude to an upper point located at 48.001 degrees latitude, and -113.571 degrees longitude. Hungry Horse Reservoir centered at 48.2 degrees latitude, and -113.771 degrees longitude.

(B) Wounded Buck Creek from a lower point located at 48.28 degrees

latitude, and -113.935 degrees longitude to an upper point located at 48.235 degrees latitude, and -113.962 degrees longitude.

(C) Wheeler Creek from a lower point located at 48.096 degrees latitude, and -113.729 degrees longitude to an upper point located at 48.067 degrees latitude, and -113.776 degrees longitude.

(D) Quintonkon Creek from a lower point located at 48.026 degrees latitude, and -113.707 degrees longitude to an upper point located at 48.013 degrees latitude, and -113.766 degrees longitude. Sullivan Creek from a lower point located at 48.044 degrees latitude, and -113.689 degrees longitude to an upper point located at 47.879 degrees latitude, and -113.656 degrees longitude.

(E) Spotted Bear River from a lower point located at 47.924 degrees latitude, and -113.526 degrees longitude to an upper point located at 47.878 degrees latitude, and -113.212 degrees longitude.

(F) Bunker Creek from a lower point located at 47.83 degrees latitude, and -113.415 degrees longitude to an upper point located at 47.829 degrees latitude, and -113.581 degrees longitude.

(G) Little Salmon Creek from a lower point located at 47.655 degrees latitude, and -113.36 degrees longitude to an upper point located at 47.588 degrees latitude, and -113.61 degrees longitude.

(H) Big Salmon Creek from a lower point located at 47.586 degrees latitude, and -113.419 degrees longitude to an upper point located at 47.567 degrees latitude, and -113.495 degrees longitude. Big Salmon Lake centered at 47.602 degrees latitude, and -113.386 degrees longitude.

(I) White River from a lower point located at 47.588 degrees latitude, and -113.298 degrees longitude to an upper point located at 47.611 degrees latitude, and -113.203 degrees longitude.

(J) Gordon Creek from a lower point located at 47.479 degrees latitude, and -113.224 degrees longitude to an upper point located at 47.424 degrees latitude, and -113.437 degrees longitude.

(K) Doctor Creek from a lower point located at 47.388 degrees latitude, and -113.482 degrees longitude to an upper point located at 47.429 degrees latitude, and -113.458 degrees longitude. Doctor Lake centered at 47.404 degrees latitude, and -113.48 degrees longitude.

(L) Babcock Creek from a lower point located at 47.366 degrees latitude, and -113.269 degrees longitude to an upper point located at 47.359 degrees latitude, and -113.351 degrees longitude. Youngs Creek from a lower point located at 47.445 degrees latitude, and -113.183 degrees longitude to an upper point

located at 47.282 degrees latitude, and -113.313 degrees longitude.

(M) Danaher Creek from a lower point located at 47.445 degrees latitude, and -113.183 degrees longitude to an upper point located at 47.275 degrees latitude, and -113.014 degrees longitude. Rapid Creek from a lower point located at 47.372 degrees latitude, and -113.054 degrees longitude to an upper point located at 47.382 degrees latitude, and -113.026 degrees longitude.

(ix) Critical Habitat Subunit—Bitterroot.

(A) Bitterroot River from a lower point located at 46.861 degrees latitude, and -114.118 degrees longitude to an upper point located at 45.944 degrees latitude, and -114.128 degrees longitude.

(B) Burnt Fork Creek from a lower point located at 46.542 degrees latitude, and -114.099 degrees longitude to an upper point located at 46.304 degrees latitude, and -113.837 degrees longitude. Gold Creek from a lower point located at 46.398 degrees latitude, and -113.903 degrees longitude to an upper point located at 46.324 degrees latitude, and -113.904 degrees longitude. Little Burnt Fork Creek from a lower point located at 46.322 degrees latitude, and -113.808 degrees longitude to an upper point located at 46.287 degrees latitude, and -113.831 degrees longitude.

(C) Fred Burr Creek from a lower point located at 46.348 degrees latitude, and -114.152 degrees longitude to an upper point located at 46.357 degrees latitude, and -114.315 degrees longitude. Mill Creek from a lower point located at 46.372 degrees latitude, and -114.127 degrees longitude to an upper point located at 46.312 degrees latitude, and -114.286 degrees longitude.

(D) Blodgett Creek from a lower point located at 46.312 degrees latitude, and -114.145 degrees longitude to an upper point located at 46.248 degrees latitude, and -114.453 degrees longitude.

(E) Daly Creek from a lower point located at 46.168 degrees latitude, and -113.911 degrees longitude to an upper point located at 46.25 degrees latitude, and -113.823 degrees longitude. Railroad Creek from a lower point located at 46.158 degrees latitude, and -113.885 degrees longitude to an upper point located at 46.188 degrees latitude, and -113.803 degrees longitude. Skalkaho Creek from a lower point located at 46.22 degrees latitude, and -114.162 degrees longitude to an upper point located at 46.057 degrees latitude, and -113.807 degrees longitude. Weasel Creek from a lower point located at 46.129 degrees latitude, and -113.854 degrees longitude to an upper point

located at 46.152 degrees latitude, and -113.799 degrees longitude.

(F) Divide Creek from a lower point located at 46.064 degrees latitude, and -113.967 degrees longitude to an upper point located at 46.043 degrees latitude, and -113.818 degrees longitude. Sleeping Child Creek from a lower point located at 46.162 degrees latitude, and -114.159 degrees longitude to an upper point located at 46.033 degrees latitude, and -113.814 degrees longitude. Switchback Creek from a lower point located at 46.059 degrees latitude, and -113.933 degrees longitude to an upper point located at 46.066 degrees latitude, and -113.925 degrees longitude. Two Bear Creek from a lower point located at 46.111 degrees latitude, and -114.009 degrees longitude to an upper point located at 46.094 degrees latitude, and -113.897 degrees longitude.

(G) Beaver Creek from a lower point located at 45.528 degrees latitude, and -114.318 degrees longitude to an upper point located at 45.507 degrees latitude, and -114.393 degrees longitude. Bitterroot River, West Fork from a lower point located at 45.944 degrees latitude, and -114.128 degrees longitude to an upper point located at 45.461 degrees latitude, and -114.341 degrees longitude. Blue Joint Creek from a lower point located at 45.696 degrees latitude, and -114.314 degrees longitude to an upper point located at 45.6 degrees latitude, and -114.518 degrees longitude. Chicken Creek from a lower point located at 45.601 degrees latitude, and -114.313 degrees longitude to an upper point located at 45.621 degrees latitude, and -114.403 degrees longitude. Deer Creek from a lower point located at 45.595 degrees latitude, and -114.321 degrees longitude to an upper point located at 45.57 degrees latitude, and -114.509 degrees longitude. Hughes Creek from a lower point located at 45.621 degrees latitude, and -114.303 degrees longitude to an upper point located at 45.667 degrees latitude, and -114.021 degrees longitude. Johnson Creek from a lower point located at 45.538 degrees latitude, and -114.319 degrees longitude to an upper point located at 45.494 degrees latitude, and -114.268 degrees longitude. Overwhich Creek from a lower point located at 45.675 degrees latitude, and -114.307 degrees longitude to an upper point located at 45.717 degrees latitude, and -114.08 degrees longitude. Painted Rocks Reservoir centered at 45.701 degrees latitude, and -114.293 degrees longitude. Sheep Creek from a lower point located at 45.52 degrees latitude, and -114.319 degrees longitude to an upper point located at 45.482 degrees latitude, and

–114.304 degrees longitude. Slate Creek from a lower point located at 45.698 degrees latitude, and –114.286 degrees longitude to an upper point located at 45.734 degrees latitude, and –114.183 degrees longitude. Straight Creek from a lower point located at 45.677 degrees latitude, and –114.099 degrees longitude to an upper point located at 45.683 degrees latitude, and –114.04 degrees longitude. Woods Creek from a lower point located at 45.564 degrees latitude, and –114.321 degrees longitude to an upper point located at 45.512 degrees latitude, and –114.402 degrees longitude.

(H) Bitterroot River, East Fork from a lower point located at 45.944 degrees latitude, and –114.128 degrees longitude to an upper point located at 45.911 degrees latitude, and –113.595 degrees longitude. Buck Creek from a lower point located at 45.903 degrees latitude, and –113.631 degrees longitude to an upper point located at 45.891 degrees latitude, and –113.633 degrees longitude. Bugle Creek from a lower point located at 45.878 degrees latitude, and –113.786 degrees longitude to an upper point located at 45.835 degrees latitude, and –113.776 degrees longitude. Bush Creek from a lower point located at 45.944 degrees latitude, and –113.733 degrees longitude to an upper point located at 46 degrees latitude, and –113.731 degrees longitude. Lick Creek from a lower point located at 45.938 degrees latitude, and –113.717 degrees longitude to an upper point located at 45.944 degrees latitude, and –113.656 degrees longitude. Martin Creek from a lower point located at 45.93 degrees latitude, and –113.723 degrees longitude to an upper point located at 46.03 degrees latitude, and –113.778 degrees longitude. Meadow Creek from a lower point located at 45.908 degrees latitude, and –113.78 degrees longitude to an upper point located at 45.798 degrees latitude, and –113.782 degrees longitude. Moose Creek from a lower point located at 45.922 degrees latitude, and –113.727 degrees longitude to an upper point located at 46.01 degrees latitude, and –113.708 degrees longitude. Reynolds Creek from a lower point located at 45.947 degrees latitude, and –113.717 degrees longitude to an upper point located at 45.957 degrees latitude, and –113.646 degrees longitude. Sign Creek from a lower point located at 45.97 degrees latitude, and –113.711 degrees longitude to an upper point located at 45.993 degrees latitude, and –113.678 degrees longitude. Swift Creek from a lower point located at 45.891 degrees latitude, and –113.776 degrees longitude

to an upper point located at 45.874 degrees latitude, and –113.753 degrees longitude.

(I) Fault Creek from a lower point located at 45.76 degrees latitude, and –114.108 degrees longitude to an upper point located at 45.724 degrees latitude, and –114.081 degrees longitude. Fire Creek from a lower point located at 45.791 degrees latitude, and –114.065 degrees longitude to an upper point located at 45.788 degrees latitude, and –114.038 degrees longitude. Porcupine Creek from a lower point located at 45.756 degrees latitude, and –114.056 degrees longitude to an upper point located at 45.723 degrees latitude, and –114.003 degrees longitude. Prayer Creek from a lower point located at 45.756 degrees latitude, and –114.055 degrees longitude to an upper point located at 45.726 degrees latitude, and –114.026 degrees longitude. Warm Springs Creek from a lower point located at 45.86 degrees latitude, and –114.025 degrees longitude to an upper point located at 45.726 degrees latitude, and –114.057 degrees longitude. Wiles Creek from a lower point located at 45.766 degrees latitude, and –114.075 degrees longitude to an upper point located at 45.726 degrees latitude, and –114.142 degrees longitude.

(x) Critical Habitat Subunit—Blackfoot River.

(A) Blackfoot River from a lower point located at 46.87 degrees latitude, and –113.889 degrees longitude to an upper point located at 47.011 degrees latitude, and –112.476 degrees longitude.

(B) Daisy Creek from a lower point located at 47.02 degrees latitude, and –113.772 degrees longitude to an upper point located at 47.055 degrees latitude, and –113.822 degrees longitude. Gold Creek from a lower point located at 46.919 degrees latitude, and –113.676 degrees longitude to an upper point located at 47.058 degrees latitude, and –113.743 degrees longitude. Gold Creek, West Fork from a lower point located at 46.996 degrees latitude, and –113.685 degrees longitude to an upper point located at 47.032 degrees latitude, and –113.827 degrees longitude.

(C) Belmont Creek from a lower point located at 46.954 degrees latitude, and –113.569 degrees longitude to an upper point located at 47.061 degrees latitude, and –113.681 degrees longitude.

(D) Cottonwood Creek from a lower point located at 47.025 degrees latitude, and –113.281 degrees longitude to an upper point located at 47.161 degrees latitude, and –113.345 degrees longitude.

(E) Dunham Creek from a lower point located at 47.103 degrees latitude, and –113.155 degrees longitude to an upper

point located at 47.238 degrees latitude, and –113.316 degrees longitude. Lodgepole Creek from a lower point located at 47.183 degrees latitude, and –113.202 degrees longitude to an upper point located at 47.229 degrees latitude, and –113.27 degrees longitude. Monture Creek from a lower point located at 47.02 degrees latitude, and –113.235 degrees longitude to an upper point located at 47.301 degrees latitude, and –113.249 degrees longitude.

(F) Blackfoot River, North Fork from a lower point located at 46.985 degrees latitude, and –113.129 degrees longitude to an upper point located at 47.197 degrees latitude, and –112.886 degrees longitude.

(G) Copper Creek from a lower point located at 47.007 degrees latitude, and –112.555 degrees longitude to an upper point located at 47.06 degrees latitude, and –112.752 degrees longitude. Landers Fork from a lower point located at 46.965 degrees latitude, and –112.562 degrees longitude to an upper point located at 47.099 degrees latitude, and –112.566 degrees longitude.

(xi) Critical Habitat Subunit—Clearwater River and Lake Chain.

(A) Salmon Lake centered at 47.091 degrees latitude, and –113.4 degrees longitude.

(B) Clearwater River from a lower point located at 47.107 degrees latitude, and –113.427 degrees longitude to an upper point located at 47.39 degrees latitude, and –113.561 degrees longitude.

(C) Finley Creek from a lower point located at 47.125 degrees latitude, and –113.56 degrees longitude to an upper point located at 47.12 degrees latitude, and –113.649 degrees longitude. Owl Creek from a lower point located at 47.115 degrees latitude, and –113.441 degrees longitude to an upper point located at 47.115 degrees latitude, and –113.502 degrees longitude. Placid Creek from a lower point located at 47.116 degrees latitude, and –113.541 degrees longitude to an upper point located at 47.187 degrees latitude, and –113.692 degrees longitude. Placid Lake centered at 47.119 degrees latitude, and –113.524 degrees longitude.

(D) Morrell Creek from a lower point located at 47.141 degrees latitude, and –113.46 degrees longitude to an upper point located at 47.342 degrees latitude, and –113.471 degrees longitude.

(E) Deer Creek from a lower point located at 47.208 degrees latitude, and –113.529 degrees longitude to an upper point located at 47.249 degrees latitude, and –113.688 degrees longitude. Seeley Lake centered at 47.194 degrees latitude, and –113.509 degrees longitude.

(F) Clearwater River, West Fork from a lower point located at 47.256 degrees latitude, and – 113.55 degrees longitude to an upper point located at 47.287 degrees latitude, and – 113.744 degrees longitude.

(G) Clearwater Lake centered at 47.386 degrees latitude, and – 113.559 degrees longitude. Lake Alva centered at 47.314 degrees latitude, and – 113.582 degrees longitude. Lake Inez centered at 47.282 degrees latitude, and – 113.566 degrees longitude. Rainy Lake centered at 47.339 degrees latitude, and – 113.594 degrees longitude.

(H) Clearwater River, East Fork from a lower point located at 47.352 degrees latitude, and – 113.581 degrees longitude to an upper point located at 47.343 degrees latitude, and – 113.495 degrees longitude. Colt Creek from a lower point located at 47.328 degrees latitude, and – 113.589 degrees longitude to an upper point located at 47.361 degrees latitude, and – 113.658 degrees longitude.

(xii) Critical Habitat Subunit—Rock Creek.

(A) Rock Creek from a lower point located at 46.725 degrees latitude, and – 113.682 degrees longitude to an upper point located at 46.223 degrees latitude, and – 113.521 degrees longitude.

(B) Gilbert Creek from a lower point located at 46.682 degrees latitude, and – 113.666 degrees longitude to an upper point located at 46.648 degrees latitude, and – 113.818 degrees longitude.

(C) Brewster Creek from a lower point located at 46.612 degrees latitude, and – 113.653 degrees longitude to an upper point located at 46.582 degrees latitude, and – 113.587 degrees longitude.

(D) Ranch Creek from a lower point located at 46.583 degrees latitude, and – 113.678 degrees longitude to an upper point located at 46.468 degrees latitude, and – 113.577 degrees longitude.

(E) Welcome Creek from a lower point located at 46.566 degrees latitude, and – 113.7 degrees longitude to an upper point located at 46.613 degrees latitude, and – 113.806 degrees longitude.

(F) Butte Cabin Creek from a lower point located at 46.52 degrees latitude, and – 113.767 degrees longitude to an upper point located at 46.482 degrees latitude, and – 113.684 degrees longitude.

(G) Wahlquist Creek from a lower point located at 46.501 degrees latitude, and – 113.776 degrees longitude to an upper point located at 46.531 degrees latitude, and – 113.843 degrees longitude.

(H) Cougar Creek from a lower point located at 46.455 degrees latitude, and – 113.768 degrees longitude to an upper point located at 46.47 degrees latitude, and – 113.675 degrees longitude.

(I) Hogback Creek from a lower point located at 46.41 degrees latitude, and – 113.702 degrees longitude to an upper point located at 46.44 degrees latitude, and – 113.625 degrees longitude.

(J) Wyman Creek from a lower point located at 46.396 degrees latitude, and – 113.688 degrees longitude to an upper point located at 46.308 degrees latitude, and – 113.771 degrees longitude.

(K) Stony Creek from a lower point located at 46.348 degrees latitude, and – 113.603 degrees longitude to an upper point located at 46.283 degrees latitude, and – 113.771 degrees longitude.

(L) Beaver Creek from a lower point located at 46.472 degrees latitude, and – 113.493 degrees longitude to an upper point located at 46.468 degrees latitude, and – 113.555 degrees longitude. Upper Willow Creek from a lower point located at 46.331 degrees latitude, and – 113.542 degrees longitude to an upper point located at 46.566 degrees latitude, and – 113.522 degrees longitude.

(M) Bowles Creek from a lower point located at 46.192 degrees latitude, and – 113.747 degrees longitude to an upper point located at 46.207 degrees latitude, and – 113.812 degrees longitude. Rock Creek, North Fork from a lower point located at 46.212 degrees latitude, and – 113.696 degrees longitude to an upper point located at 46.244 degrees latitude, and – 113.772 degrees longitude. Rock Creek, West Fork from a lower point located at 46.223 degrees latitude, and – 113.521 degrees longitude to an upper point located at 46.144 degrees latitude, and – 113.721 degrees longitude. Sand Basin Creek from a lower point located at 46.197 degrees latitude, and – 113.703 degrees longitude to an upper point located at 46.151 degrees latitude, and – 113.712 degrees longitude.

(N) Moose Meadow Creek from a lower point located at 46.139 degrees latitude, and – 113.591 degrees longitude to an upper point located at

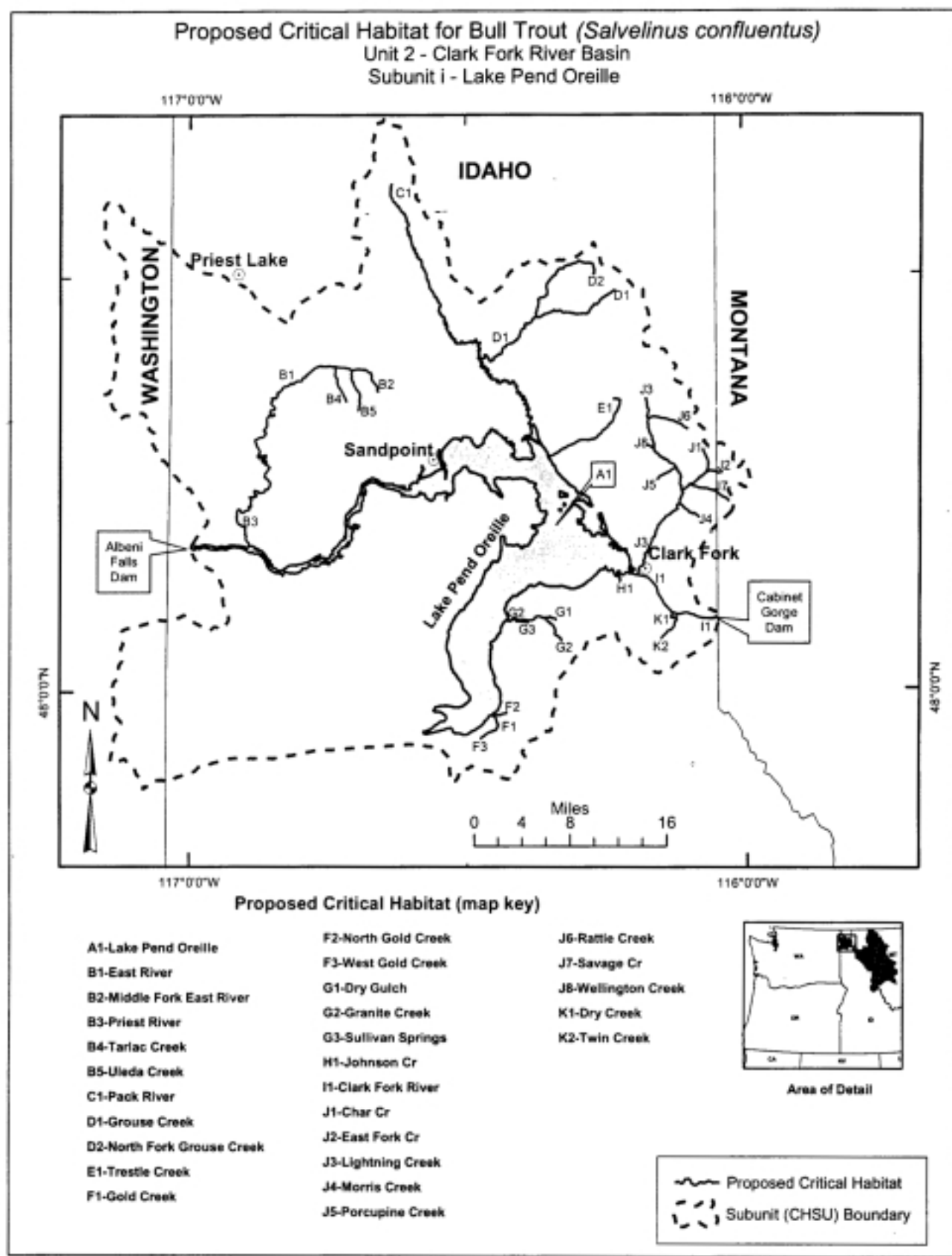
46.078 degrees latitude, and – 113.635 degrees longitude. Rock Creek, Ross Fork from a lower point located at 46.224 degrees latitude, and – 113.525 degrees longitude to an upper point located at 46.034 degrees latitude, and – 113.779 degrees longitude. Rock Creek, Ross Fork, South Fork from a lower point located at 46.113 degrees latitude, and – 113.66 degrees longitude to an upper point located at 46.038 degrees latitude, and – 113.698 degrees longitude.

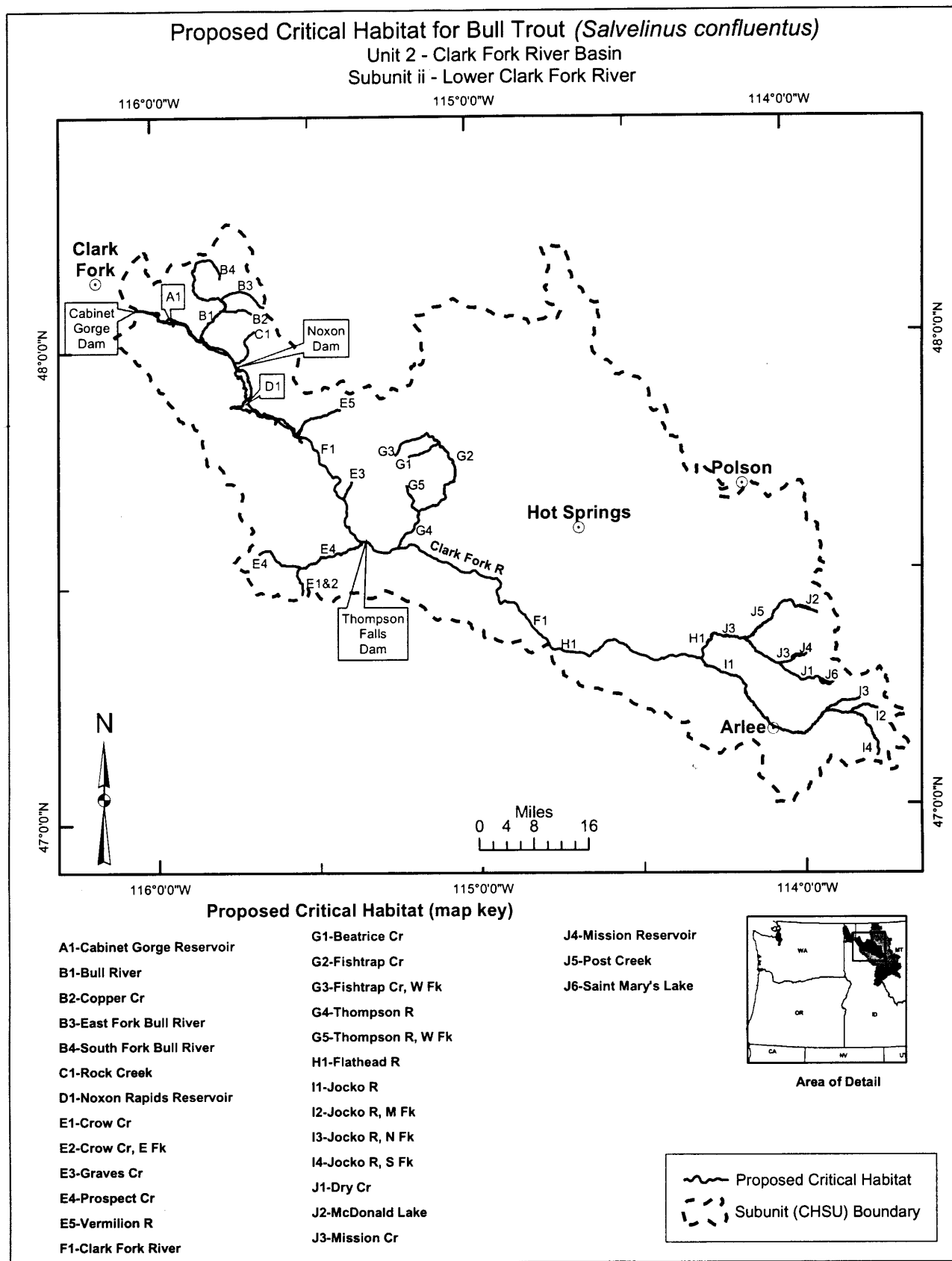
(O) East Fork Reservoir centered at 46.118 degrees latitude, and – 113.374 degrees longitude. Meadow Creek from a lower point located at 46.157 degrees latitude, and – 113.439 degrees longitude to an upper point located at 46.092 degrees latitude, and – 113.443 degrees longitude. Rock Creek, East Fork from a lower point located at 46.2 degrees latitude, and – 113.499 degrees longitude to an upper point located at 46.021 degrees latitude, and – 113.319 degrees longitude.

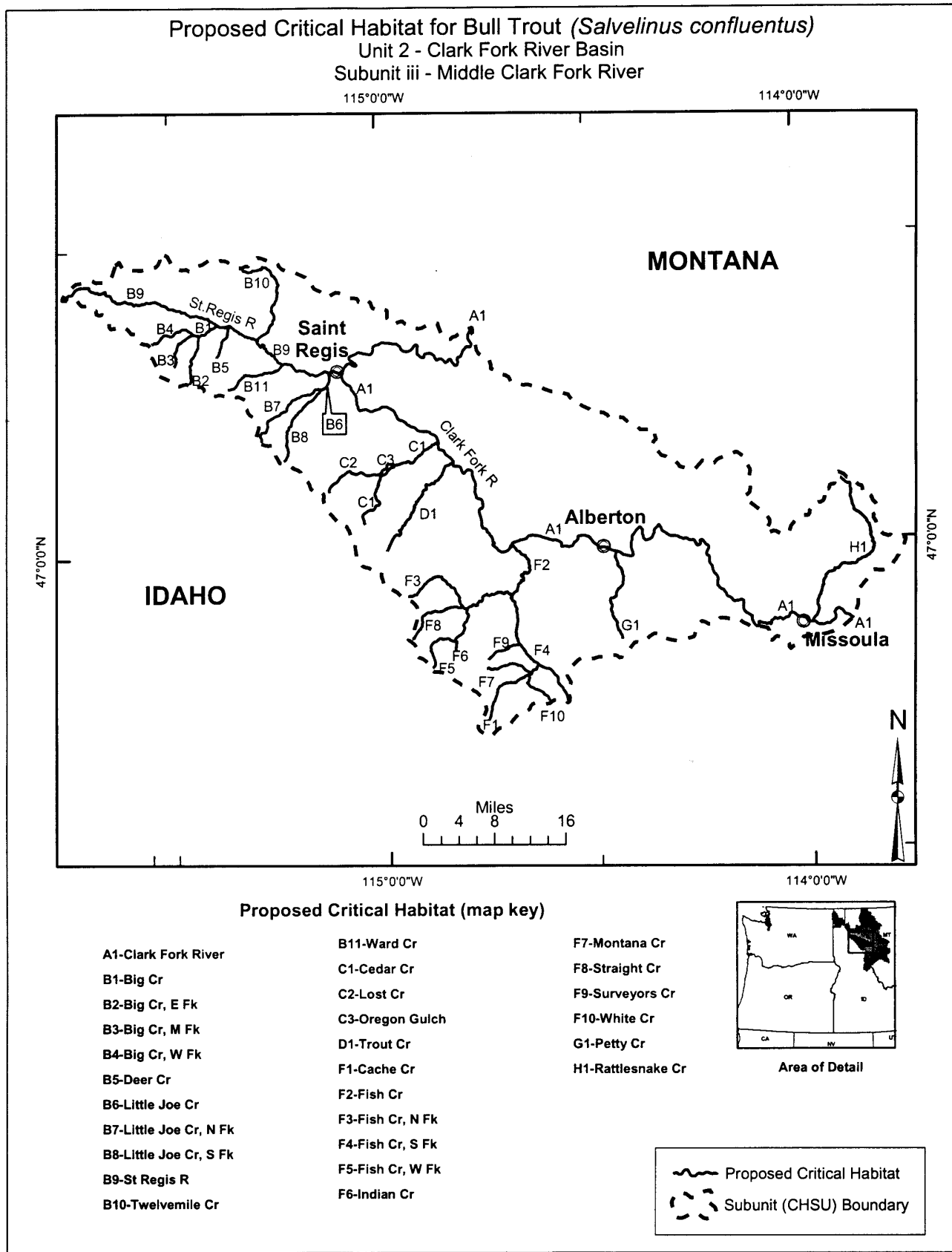
(P) Carpp Creek from a lower point located at 46.032 degrees latitude, and – 113.524 degrees longitude to an upper point located at 45.985 degrees latitude, and – 113.446 degrees longitude. Copper Creek from a lower point located at 46.068 degrees latitude, and – 113.538 degrees longitude to an upper point located at 45.949 degrees latitude, and – 113.569 degrees longitude. Green Canyon Creek from a lower point located at 46.05 degrees latitude, and – 113.578 degrees longitude to an upper point located at 46.065 degrees latitude, and – 113.646 degrees longitude. Lutz Creek from a lower point located at 46.031 degrees latitude, and – 113.61 degrees longitude to an upper point located at 46.051 degrees latitude, and – 113.655 degrees longitude. Meyers Creek from a lower point located at 46.052 degrees latitude, and – 113.537 degrees longitude to an upper point located at 45.988 degrees latitude, and – 113.57 degrees longitude. Rock Creek, Middle Fork from a lower point located at 46.223 degrees latitude, and – 113.521 degrees longitude to an upper point located at 45.949 degrees latitude, and – 113.523 degrees longitude.

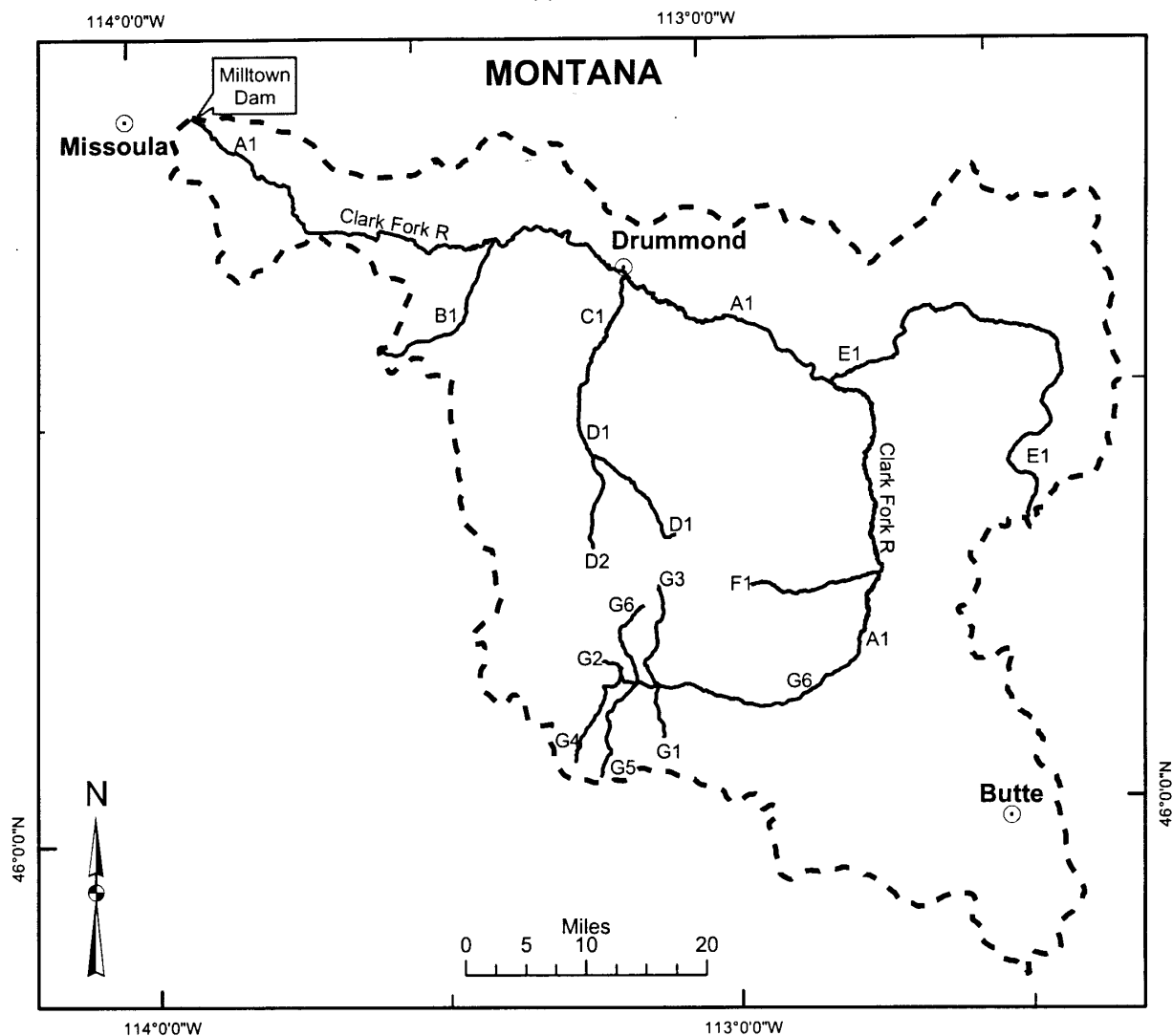
Note: Maps follow for Unit 2, Subunits i–xii.

BILLING CODE 4310–55–P







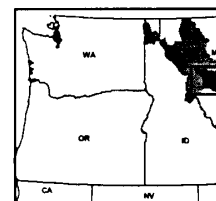
Proposed Critical Habitat for Bull Trout (*Salvelinus confluentus*)Unit 2 - Clark Fork River Basin
Subunit iv - Upper Clark Fork River

Proposed Critical Habitat (map key)

A1-Clark Fork River
B1-Harvey Cr
C1-Flint Cr
D1-Boulder Cr
D2-South Boulder Cr

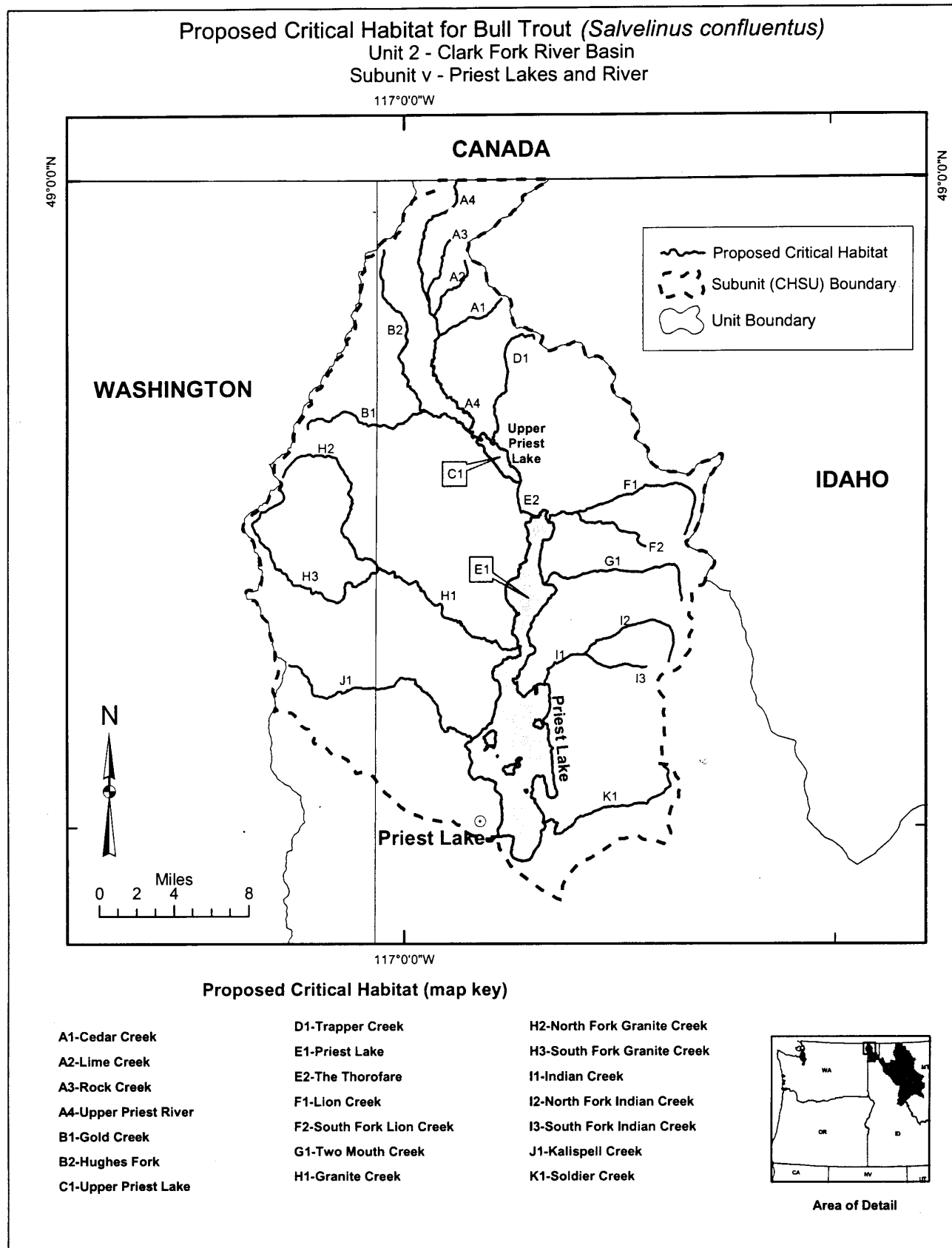
E1-Little Blackfoot R
F1-Racetrack Cr
G1-Barker Cr
G2-Cable Cr
G3-Foster Cr

G4-Storm Lake Cr
G5-Twin Lakes Cr
G6-Warm Springs Cr



Area of Detail

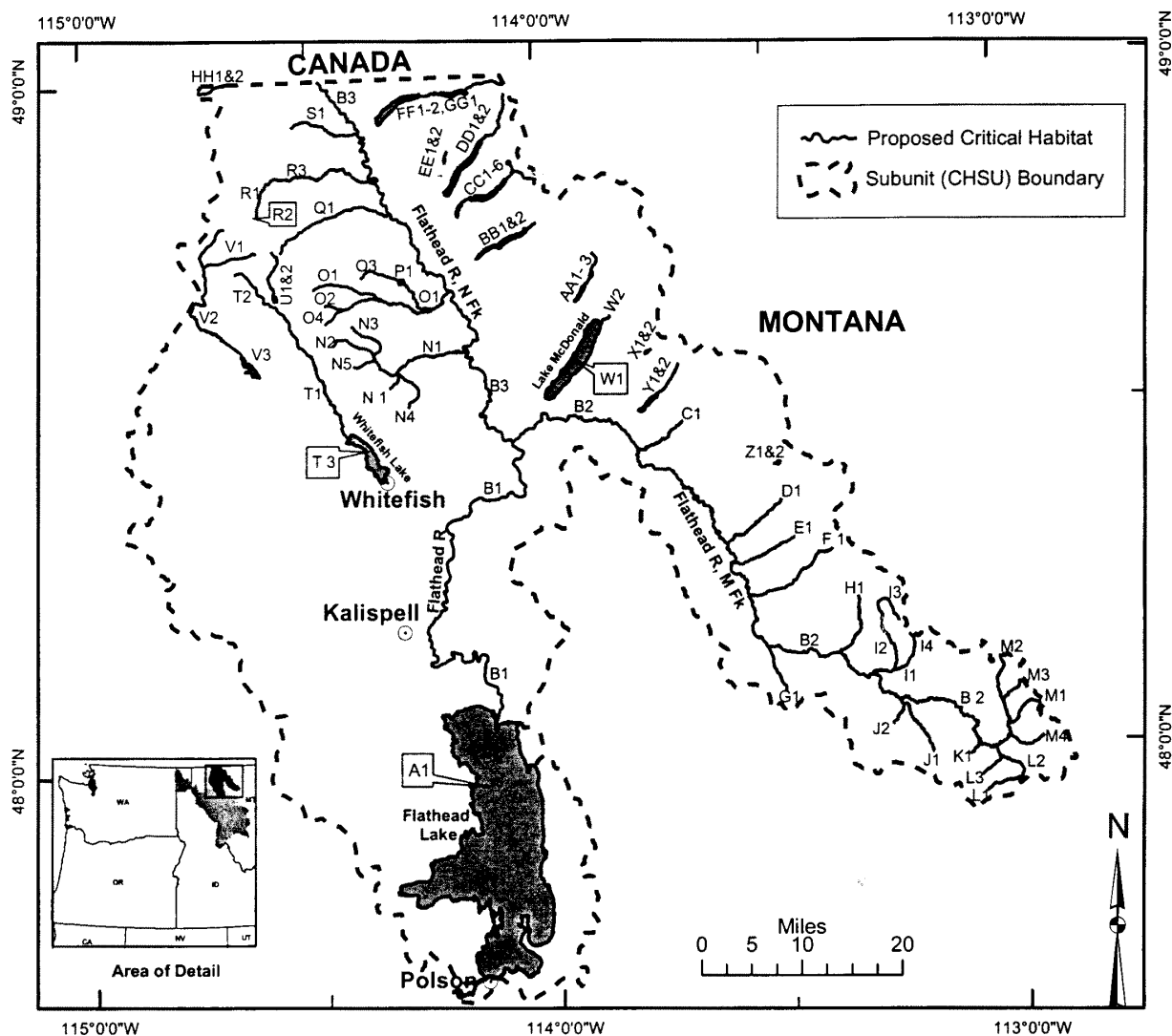
~~~~~ Proposed Critical Habitat  
----- Subunit (CHSU) Boundary



Proposed Critical Habitat for Bull Trout (*Salvelinus confluentus*)

## Unit 2 - Clark Fork River Basin

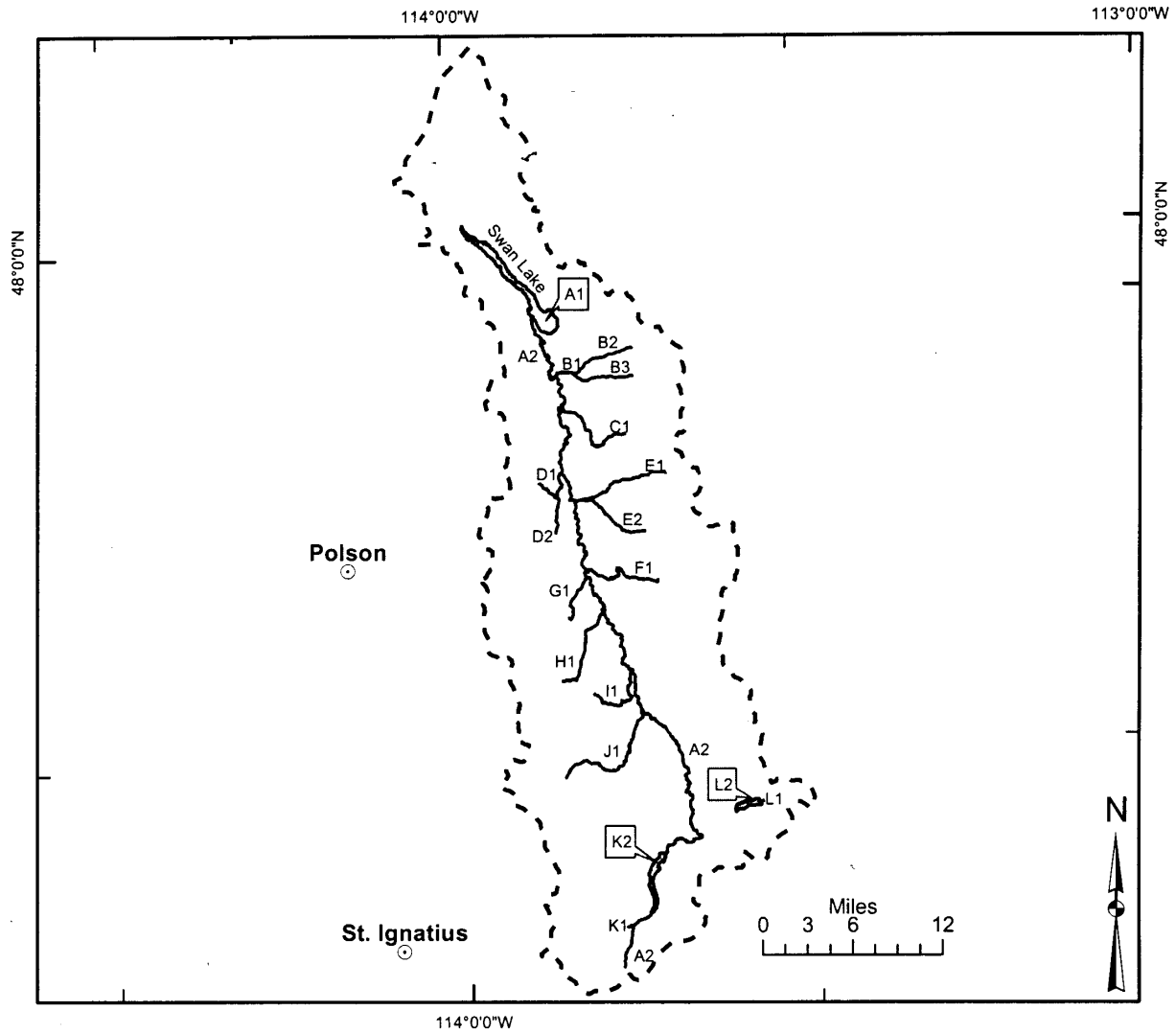
## Subunit vi - Flathead Lake and 20 Headwaters Lakes



## Proposed Critical Habitat (map Key)

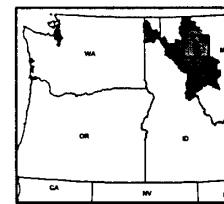
|                     |                        |                    |                          |                        |                       |
|---------------------|------------------------|--------------------|--------------------------|------------------------|-----------------------|
| A1-Flathead Lake    | I4-Whistler Cr         | N3-Kletomus Cr     | T1-Swift Cr              | Y1-Harrison Cr         | CC4-Quartz Cr         |
| B1-Flathead R       | J1-Dolly Varden Cr     | N4-Skookoleel Cr   | T2-Swift Cr, W Fk        | Y2-Harrison Lake       | CC5-Quartz Lake       |
| B2-Flathead R, M Fk | J2-Schafer Cr          | N5-Werner Cr       | T3-Whitefish Lake        | Z1-Lake Isabel         | CC6-Rainbow Cr        |
| B3-Flathead R, N Fk | K1-Clack Cr            | O1-Coal Cr         | U1-Swift Cr, E Fk        | Z2-Park Cr             | DD1-Bowman Cr         |
| C1-Nyack Cr         | L1-Basin Cr            | O2-Coal Cr, S Fk   | U2-Upper Whitefish Lake  | AA1-Arrow Lake         | DD2-Bowman Lake       |
| D1-Park Cr          | L2-Bowl Cr             | O3-Cyclone Cr      | V1-Fitzsimmons Cr        | AA2-Camas Cr           | EE1-Akokala Cr        |
| E1-Ole Cr           | L3-Scalp Cr            | O4-Mathias Cr      | V2-Stillwater R          | AA3-Trout Lake         | EE2-Akokala Lake      |
| F1-Bear Creek       | M1-Gateway Cr          | P1-Cyclone Lake    | V3-Upper Stillwater Lake | BB1-Logging Cr         | FF1-Kintla Cr         |
| G1-Long Creek       | M2-Strawberry Cr       | Q1-Red Meadow Cr   | W1-Lake McDonald         | BB2-Logging Lake       | FF2-Kintla Lake       |
| H1-Granite Cr       | M3-Strawberry Cr, E Fk | R1-Shorty Cr       | W2-McDonald Cr           | CC1-Cerulean Lake      | GG1-Upper Kintla Lake |
| I1-Lodgepole Cr     | M4-Trail Cr            | R2-Shorty Cr, S Fk | X1-Lincoln Cr            | CC2-Lower Quartz Lake  | HH1-Frozen Cr         |
| I2-Morrison Cr      | N1-Big Cr              | R3-Whale Cr        | X2-Lincoln Lake          | CC3-Middle Quartz Lake | HH2-Frozen Lake       |
| I3-Puzzle Cr        | N2-Hallowat Cr         | S1-Trail Cr        |                          |                        |                       |

**Proposed Critical Habitat for Bull Trout (*Salvelinus confluentus*)**  
**Unit 2 - Clark Fork River Basin**  
**Subunit vii - Swan**



**Proposed Critical Habitat (map key)**

|                      |                   |
|----------------------|-------------------|
| A1-Swan Lake         | G1-Piper Cr       |
| A2-Swan River        | H1-Jim Cr         |
| B1-Lost Cr           | I1-Cold Cr        |
| B2-Lost Cr, N Fk     | J1-Elk Cr         |
| B3-Lost Cr, S Fk     | K1-Crystal Creek  |
| C1-Soup Cr           | K2-Lindbergh Lake |
| D1-Woodward Cr       | L1-Holland Cr     |
| D2-Woodward Cr, S Fk | L2-Holland Lake   |
| E1-Goat Cr           |                   |
| E2-Squeezer Cr       |                   |
| F1-Lion Cr           |                   |



**Area of Detail**

- ~~~~~ Proposed Critical Habitat  
 - - - - Subunit (CHSU) Boundary